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# ARMY

magazine of the ASSOCIATION OF THE UNITED STATES ARMY

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Advance man's knowledge of warfare in the fields of strategy, tactics, logistics, operations, administration, weapons and weapons systems.

Advance man's knowledge and understanding of the soldier as an individual, as a member of a trained unit, and as a member of the whole Army; emphasizing leadership, esprit, loyalty, and a high sense of duty.

Disseminate knowledge of military history, especially articles that have application to current problems or foster tradition and create esprit.

Explain the important and vital role of the United States Army in the Nation's defense and show that the Army is alert to the challenges of new weapons, machines, and methods.

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## THE MONTH'S COVER

In the spring of 1942 as the U. S. girded for battle against Germany and Japan, light aircraft for the spotting of targets became organic to the Field Artillery. By the end of the war other arms had found uses for these handy aircraft. During the Korean conflict more uses were found for them and for the helicopter. Today, fifteen years after Army Aviation was born, the full potential of slow-flying, low-flying aircraft is just beginning to be realized.

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## **THE FLIGHT HEARD 'ROUND THE WORLD**

Recently three B-52 bombers flew around the world in 45 hours and 19 minutes. They were only specks in the vastness of the sky, yet they were in voice-contact every mile of the way—with SAC headquarters in Omaha, with each other, with bases along the route and with the KC-97 tankers that refueled them in the air.

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## THE MONTH'S MAIL

### *They Want it Tough*

- As a graduating senior and a member of the Army Reserve, I agree with Major Multissimus in "The Wearing of the Army Green" [May].

We students feel that the Army is trying to "civilianize" its literature so that the young man places the military training second when he enlists or is drafted. The boy sees the Army as the lowest branch of the service because of its "moth-eaten" attitude. To him it is a way of getting men to serve in order to complete their military obligation as soon as possible. Now is the time to use the Marine Corps method of tradition and patriotism in recruiting. One slogan that stops even the girls is "The Marine Corps Makes Men."

As the Major says, we crave adventure and ruggedness. That is one reason why the juvenile crime rate is so high. Today's youth lives in easiness and is rebelling because of it. They actually want tough sergeants and rugged training!

The men in my unit are proud of themselves because we know that in our dress we show the *esprit* we have in ourselves and in our unit. Even the hometown folk are proud to see us because they feel we show what the community is made of.

Build tradition! Give them tough training! Make them proud to say they were troopers, tankers, redlegs or doughboys. I face military service, and as for myself, I want to be in the best!

PFC JAMES T. ROBERTS, JR.  
Alexandria, Va.

### *Let's go Whole Hog*

- Change is progress?

The April issue was received in due time, and the new Artillery "insignia" fairly rocketed off the paper at me. What is it? 'Tis neither cannon nor missile. Perhaps the description of the Asterisk-USA would more nearly be suitable for officers of Artillery.

Should this apparition be really and seriously adopted, why not go the whole way with the rest of the branches? To wit:

AGC: Replace with ball-point pen mounted on current model IBM card-sorter, M1.

Armor: Replace with tank only. Sabers never cut steel anyway.

Corps of Engineers: A castle? De-

molish it and replace with bulldozer and topographical plane table.

Finance Corps: How about a replica of an IBM card—red-lined, of course?

Infantry: Archaic now. Substitute latest rifle chambered for NATO cartridge.

IG: Delete the mace and replace with magnifying glass.

JAGC: Crossed MCMs surmounted by Stenotype machine.

MPC: Dueling is illegal (see TJAG for opinion). Why not use crossed nightsticks with .45 automatic?

Ordnance Corps: 2,000-gallon trailer hydrazine topped by "no smoking" sign.

QMC: Key and sword must go! Wheel (pneumatic) and TWX machine will be capital substitute!

Signal Corps: \$64,000 to man last seen using flags for field communications. Out with the old! In with the new! Suggest using helmet radio for insignia (working model).

Transportation Corps: A toughie! How about a steel disc wheel with delta-wing with remnant of boat bottom (or something)?

My point is this: let's be consistent. After over fourteen years as a field artilleryman all the way, I see little reason to start fooling around with branch insignia. All the talk about preserving and building on tradition apparently has been so much sales-promotion stuff for the record.

If updating is needed, do it by instilling pride in men. Books are not judged by their covers. An army is men and equipment. Give the men something to be proud of by setting an example from the top man down to the corporal, punish severely anyone who abuses or violates a position of trust or responsibility. Most of all, keep the great traditions of the Army alive by keeping the devices of identification now in use.

You have a great and most interesting magazine. I have subscribed continuously since 1944, and will continue to do so.

MAJOR DONALD G. HIME  
LaGrange, Ill.

### *The Broad View*

- Congratulations on the greatly improved voice of AUSA as evidenced by the April issue of ARMY. In view of the thought-provoking (and perhaps action-inspiring) articles like the one by Colonel Collins in January and the editorial which

quoted a personal letter in April, the basic problems which plague today's Army will be brought to the attention of those who can best do something about the problems. The "very" senior officer of today does not—repeat not—get a true picture of the basic combat unit—company, battery, troop. Instead, he gets a view of Fort Baxter, wherein the grass has been manicured for his visit, the helmets chromed for his honor guard (which, by the way, brought normal training for 500 men, at least, to a standstill). The Sergeants Bilko have been hidden away, the special routine class reviewed by everyone to see that our "normal" activities are way above normal. With all this, the VIP is rushed on a two-and-a-half minute schedule to every conceivable place that looks good and screened from every detail that looks bad. This is not a gripe about any installation I have been on recently. It is a statement of fact covering most large Army posts today. The VIP does not get a troop-level picture. Through ARMY he should now be able to glean a few inside snapshots of the company-grade life he left twenty years ago or more.

We all know that legislative and R&D problems are big ones, but the troop unit must not be overlooked because of the other big problems.

The Army itself has been one of its own worst enemies during the past fifteen years. We have accepted sub-par personnel in officer and noncommissioned grades and have allowed them to coast along. As a result, we have been required, at every level of command, to set up checks against misuse of authority and abuse of privilege. In doing so we have had to set up control agencies that added to the overhead and thereby swelled out management requirements. This all leads to the fact that it is now possible to have a hundred or more per cent of authorized strength on duty at an installation and still have only fifty to sixty per cent of the personnel available for the line units who do the soldiering.

General Taylor's recent order that paperwork be cut to the minimum was a start in the right direction. General Weible's program of not saddling the noncommissioned grades with officers who were reverting to enlisted status and the continuance in grade of noncommissioned officers who could no longer cut the mustard are encouraging in personnel fields.

Now if we do away with an archaic system of property accounting based on a premise that all men are crooks, we'll be off to a good start on reverting to our basic mission of maintaining the national defense at its highest level with minimum cost to the taxpayer.

Please also tell your would-be advertisers that your ads are read by Army men and civilians alike, and that the recent growth of advertising space indicates a good potential that those who already advertise are perceptive enough to see.

CAPT. LESLIE S. AYERS

Fort Riley, Kansas

### We Must Fight Back

• I take exception to a letter by Mr. Herbert Roth in ARMY for April 1957, to the effect that "The Air Defense Muddle" in the February issue implies or represents in any way a regressive or negative type of reporting. Although it is sad that conditions have deteriorated to the point where it became necessary to publish an article of such a nature, I contend that ARMY was not only justified, but obligated, to make known the sorry facts.

I too prefer to read positive articles, but a tendency has become apparent in certain quarters to disregard the practical and effective decision in favor of the political and arbitrary decision. There also has developed a trend toward shrouding incompetence and ineptness in a cloak of secrecy. Such manifestations could have a very detrimental effect upon the readiness of the Army and its capability of successful action in combat. This trend is considered very unhealthy, especially in a democracy, and deserves public attention just like any other type of inefficiency or corruption in government.

Let's all hope we can have true cooperation and unification in the armed services. The Army wants them, and certainly no one can deny that it has strived long and hard toward these ends. But when conditions exist as depicted in "The Air Defense Muddle," what other course remains except to fight back?

CAPT. DANIEL J. MYERS

Fort Bragg, NC

### Paratrooper's Prayer

• I have not seen the attached "Paratrooper's Prayer" reprinted in any Army publication. It should have widespread publicity, and should aid in giving more tradition and *esprit* to our paratrooper soldiers.

It was with great delight that I saw your spread on St. Barbara, patron of Artillerymen, some months ago. Such articles help recruits to realize they belong to an ancient order, and aren't the first men in history to serve their country.

DAVID J. DAZE

Studio City, Calif.

The "Paratrooper's Prayer" forwarded

by the writer follows. It was published in a Rochester, North Carolina, newspaper, the name of which was not given.

Valiant St. Michael, hear my call  
As through the sky I swiftly fall.  
You who hurled Satan far below  
Aid me to conquer my every foe.  
My static line keep firm to endure,  
My risers' even flow make sure.  
My suspension lines untangled be,  
My deployment bag hold steadily.  
As Angel's wing, my chute smooth be,  
From other jumpers float me free.  
Help, St. Michael, this sky-ranger  
To make a landing safe from danger.  
Soft and safe to land, and then  
Do you thank God for me.

AMEN

### Versatile Army Aviation

• "Keep the Artillery's Observation Planes in the Artillery" [April] was very interesting but rather biased. I recently finished a two-year flying tour in the Artillery, and I agree with Captain Prevost that the L-19 is a very poor artillery observation type aircraft. However, I do not feel he has given fair consideration to just how versatile this plane is. His idea of a Plexiglas bottom observation craft is good, with present-day artillery. But I can't imagine a Cub with a Plexiglas bottom some hundred miles in front of the MLR observing a missile strike. After seeing the April cover (Nike Hercules) and reading "The Pentomic Army's Missile Power," I feel that Captain Prevost was unfortunate in that his article was in the same issue. He should probably give thought to the fact that, chances are, in our next conflict a slow-flying observation type aircraft might be as obsolete as the 105-155 howitzer. The Artillery surely must realize this. How about their new insignia?

As for the statements about how ridiculous instrument flying in Army aircraft is, I think the author would do well to study a little about copter-borne operations and the changes in tactical planning that go with the Pentomic concept of battle.

LT. ERNEST R. HAFERS

Fort Huachuca, Ariz.

### Staff or Directorate

• As a staff signal officer with somewhat similarly extensive background to that of Colonel Hall, I am strongly moved to support vigorously the thesis of his "General Staff or Directorate?" [February].

So far, this headquarters generally uses the general staff system, even though we do have two added sections: Materiel Developments and Combat Developments. However, the latter has more than the inherent general staff capability, since its chief is also Deputy CG of USCONARC. As a result, it could be possible for that section to exercise directorate juris-



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diction over the various special staff sections as well as over the other general staff sections in the event of disagreement.

I am apprehensive of the future, inasmuch as several influential persons seem strongly attracted to the directorate system because of their idea that the qualified "experts" in the various technical fields are not to be trusted as members of a general staff type team, and therefore must be put under the thumb of someone who, in their opinion, is not handicapped by any real understanding of technical problems. During Sagebrush, I gained a distinct impression that, in spite of the objective of streamlining the Army, new headquarters and new jobs were being created. Also, I found heated opposition to what might be a concept worthy of test, based on a feeling that the motivation was largely to take care of the combat-arms officer who can no longer expect a command billet in his own branch but who does not wish to apply for transfer to a branch where he may learn logistical techniques from the operational aspect. Is it the officer who refuses to accept the interdependency of combat operations and logistics, and does not appreciate his more experienced colleagues in the latter, who is to crack the whip over the technical service personnel? Only too often I am reminded of the old saw that man

dislikes that which he doesn't understand.

It would be wonderful if we could all belong to the same army and, instead of playing arm against arm, arm against service, and so on, devote ourselves to the task of making a better combat army, thereby feeling assured that we are contributing to the team. Don't think I am opposed to change, for I am not. Let's improve our logistical as well as our operational capability. This is not being done by proposing, or establishing, any organizational system designed to amplify the distrust of the technical staff and which discourages the technical staff officer from developing and demonstrating his full potential as a member of the team, therefore destroying essential capabilities of the cohesive staff team to provide for all aspects of military operations.

COL. DAVID P. GIBBS

Hq. USCONARC

#### *Another Letter on Colonel Collins*

• After all the comment you have received on Colonel Collins's article, I am sure anything I have to say would be redundant. However, my reason in writing is to give you one more complete and utter concurrence to add to your statistics. Perhaps it will help.

CAPT. HOWARD M. STEELE, JR.  
Fort Benning, Ga.

#### *And Yet Another*

• Though I am late in commenting on Colonel Collins's article in the February issue, I feel that interest in his message can never be late. I only want to add one more vote of confidence in an article that has already gained much respect from so many military leaders.

If I may, I'd like to bring another article to the attention of readers of ARMY: "In Training, We Must Put First Things First," by Lieutenant Colonel Jack Wagstaff in the January 1956 issue. I think it is in perfect consonance with Colonel Collins's article and serves to accentuate (if we need to) the necessity for long overdue readjustments at the troop level.

I feel quite fortunate in that I have served under both authors, and I know both have the same purposes in mind. When two such outstanding officers see one of the Army's basic problems so clearly and are buttressed in their observations by many more who know the problems of command, why cannot there be something done about an obvious malady at the very foundation of Army life? I have seen many outstanding Regular officers driven either from the service or command duty by frustrations resulting from situations so well illustrated by Colonels Collins and Wagstaff. I hesitate also to think of the many fine reserve officers who have changed their minds about an Army career because of the seemingly short-sighted crash programs that are so prevalent and make life so miserable around the company command level.

My "cerebration" on the matter is the hope that the Department will be influenced by the response to Colonel Collins's article to the extent that a top-priority study will be made. I am confident this study would find conditions as stated by both authors. If corrected, we might then realistically approach that hard core which seems to be the popular goal of our more economy-minded military budget administrators.

The Army needs the same impetus in supporting this study as it has shown in its battle over the IRBM. While we may never fire such a missile in anger, we will always have company and battery commanders who are fighting to hold the spirit and the morale of the American soldier. I speak from the experience of commanding four companies through a period of two and a half years.

I may add that I am not speaking of poor leadership on the part of my superiors or subordinates, but about a system of controls which is manifested by policies of non-confidence and which generates a never-ending flow of paper that takes on a steamroller effect—from D/A to the individual soldier.

CAPT. CHARLES K. NULSEN, JR.  
New Orleans, La.

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# FRONT AND CENTER

## Airborne Future Discussed

The future of the airborne concept as developed by the U. S. Army since 1940 was the general subject of discussion at the 1957 Army Airborne Conference at Fort Bragg. Out of the conference came a number of ideas and concepts but in general it was agreed that a closer marriage of Army airborne and Army aviation was desirable and inevitable.

Among the group's recommendations was one advocating the abolition of the once-a-month jump to earn jump pay. It was agreed that the aircraft used for "pay jumps" could better be utilized in airborne tactical and logistical training.

Divided into ten groups, the conferees analyzed twenty-two problems pertaining to airborne concepts, doctrines and procedures.

## Army in Atomic Tests

During the present series of low-yield atomic weapons tests in Nevada, Operation Plumbbob, the Army is participating with the Armed Forces Special Weapons Project in experiments to increase knowledge of the effects of atomic explosions on military equipment, matériel and personnel.

The Army will also conduct atomic weapons training exercises and troop tests involving about 2,100 men, including the rapid movement of an infantry battalion by helicopter in conjunction with a nuclear detonation.

## National Guard to Get Nike

The 720th AA Gun Battalion (California) will be the first of the National Guard units to be reorganized into Nike battalions. A number of other units have been selected for conversion during the next few years.

The 720th starts Nike training immediately, with weekly drills at 47th AAA Brigade (RA) sites in the Los Angeles area. While most men will be trained by the 47th Brigade, selected officers and men will get specialist training at

Fort Bliss for periods of from 12 to 50 weeks. After training is completed the 720th will take over and operate four Nike sites.

A selected group of the battalion will be employed as full-time technicians after the sites are turned over to the National Guard. These specialists will keep equipment action-ready and, in event of air attack, be an integral part of the air defenses of Los Angeles.

Converted units remain under state control until an emergency occurs, when they would be ordered into federal service as part of the U. S. Army Air Defense Command.

## Storing Unit Trophies

AR 742-22, recently issued, authorizing the storing of athletic awards, flags, pictures and relics having a sentimental or morale value belonging to active, inactivated and/or discontinued units of the Regular Army, Army Reserve and National Guard when in federal service.

Regular Army or Reserve trophies will be shipped at Government expense when they are no longer required, or when the unit is inactivated or discontinued, while National Guard units in federal service may ship trophies at Government expense any time.

## Screening into Standby Reserve

The Army announced that before 1 July, about 700,000 enlisted reservists will be transferred from Ready Reserve to Standby Reserve. The change will bring the strength of the Ready Reserve within the 1.448 million set by DOD. Immediately affected by the transfer are enlisted Ready reservists who incurred eight-year UMT obligations before 1 June 1953, and are not participating in training.

## World-Spanning Radio

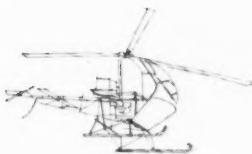
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### FORT TOTTEN CENTENNIAL

**Fort Totten**, originally built to protect New York Harbor against the threat of seaborne invasion, celebrated its one hundredth anniversary on 18 May, in conjunction with Armed Forces Day. The century-old post is now the center of all Army antiaircraft defenses for the northeastern United States, planning and supervising the Nike guided missile defenses of New York, New Jersey, New England and Thule Air Base. Shown here are the old fortifications which jut into Long Island sound.



ARMY



CONGRATULATIONS  
TO THE  
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**15<sup>TH</sup>**

**ANNIVERSARY  
OF  
ARMY AVIATION**

JUNE 6, 1957

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interference, is to be installed in the Pentagon. The World Spanner is almost fifty times more effective than the loudest commercial broadcasting station, yet is simple to operate and service. Developed by the Army Signal Engineering Laboratories and Continental Electronics, Inc. (Dallas, Texas), it is much smaller

than transmitters with far less power.

The World Spanner, with all accessories, fits into a 50-foot-square room, and can transmit at any frequency in the short-wave spectrum from 4 to 30 megacycles and a second version will cover the range from 20 to 65 megacycles.

## 1957 REUNIONS

**1st Armored Division.** 23-24 Aug. Bellevue-Stratford Hotel, Philadelphia, Pa. Write Col. Leo B. Conner, 1529 18th St., NW, Washington 6, D. C.

**1st Infantry Division.** 23-25 Aug. Sheraton-Park Hotel, Washington, D.C. Write Arthur L. Chaitt, 5309 Germania Ave., Philadelphia 44, Pa.

**2d Armored Division.** 2-4 Aug. Benj. Franklin Hotel, Philadelphia. Write R. F. Perry, PO Box 172, Alexandria, Va.

**3d Armored Division.** July. Write Paul W. Corrigan, 80 Federal St., Boston 10, Mass.

**3d Infantry Division.** 11-13 July. Claypool Hotel, Indianapolis, Ind. Write Harry Cedar, 1129 Warner Bldg., Washington 4, D. C.

**4th Armored Division.** 20-22 June. Hotel Carter, Cleveland. Write Anthony J. Passanante, PO Box 52, Kearney, N. J.

**4th Infantry Division.** 8-10 Aug. Shoreham Hotel, Washington, D. C. Write Joseph Summa, 132 Avenue V, Brooklyn 23, N. Y.

**5th Armored Division.** 8-10 Aug. Manger Hotel, Cleveland. Write Lawrence Sawchak, 6308 Ackley Road, Parma 29, Ohio.

**5th Infantry Division.** 31 Aug.-2 Sept. Hilton Hotel, Chicago. Write Lloyd A. Rader, 451 E. Clay Ave., Roselle Park, N. J.

**6th Armored Division.** 29-31 Aug. Hotel Statler, Cleveland, Ohio. Write Martin J. Lawlor, 2150 Raymond Ave., Latrobe, Pa.

**6th Infantry Division.** 6-8 Aug. Penn Sheraton Hotel, Pittsburgh. Write James E. Wittstruck, 4201 B St., Lincoln, Neb.

**8th Armored Division.** 28-30 June. Bellevue-Stratford Hotel, Philadelphia. Write Daniel H. Hahn, Jr., 3700 Garrett Road, Drexel Hill, Pa.

**9th Infantry Division.** 4-6 July. Hotel Statler, Boston. Write Stanley Cohen, PO Box 66, Livingston, N. J.

**10th Armored Division.** 31 Aug.-2 Sept. Commodore Perry Hotel, Toledo, Ohio. Write R. L. Bollinger, Pioneer, Ohio.

**12th Armored Division.** Aug. Write LeRoy W. Bensel, 2557 Main St., Lawrenceville, N. J.

**17th Airborne Division.** 9-11 Aug. Hotel Statler, Buffalo. Write W. A.

Roncone, 802 Hiland Ave., Coraopolis, Pa.

**25th Infantry Division.** 19-21 July. Hotel Statler, NYC. Write Thomas J. Badger, PO Box 101, Arlington 1, Va.

**27th Infantry Division.** Sept. Write Lawrence Reagan, PO Box 1403, Albany 1, N. Y.

**29th Infantry Division.** 31 Aug.-2 Sept. Lord Baltimore Hotel, Baltimore. Write B. F. Cassell, 505 W. Fayette St., Baltimore 1, Md.

**30th Infantry Division.** July. Write Major Saul Solow, 42 Parkway Drive, Hicksville, N. Y.

**33d Infantry Division.** June. Morrison Hotel, Chicago. Write George Radcliffe, Morrison Hotel, Chicago 2, Ill.

**34th Infantry Division.** 27-29 Sept. Nicollet Hotel, Minneapolis. Write Junior F. Miller, Red Horse Armory, Des Moines, Iowa.

**76th Infantry Division.** 15 June. Penn-Sheraton Hotel, Pittsburgh. Write Maj. Gen. Henry C. Evans, 6 S. Calvert St., Baltimore 2, Md.

**80th Infantry Division.** Aug. Write Charles Gainer, Hotel Yorktowne, York, Pa.

**82d Airborne Division.** 4-6 July. Hotel Sheraton-Gibson, Cincinnati. Write Cincinnati Chapter, 5572 Red Bank Road, Cincinnati 27, Ohio.

**83d Infantry Division.** 15-17 Aug. Hotel Roosevelt, NYC. Write Col. Robert H. York, Tactical Dept., TIS, Fort Benning, Ga.

**88th Infantry Division.** 15-18 Aug. Hotel Benj. Franklin, Philadelphia. Write Tony Mildner, 2443 S. Woodstock St., Philadelphia 45, Pa.

**94th Infantry Division.** 18-21 July. Hotel New Yorker, NYC. Write A. E. Rodriguez, 614 Oakdale Ave., Chicago 14, Ill.

**96th Infantry Division.** Write Minor Butler, Box 144, Mount Erie, Ill.

**99th Infantry Division.** 19-21 July. Lord Baltimore Hotel, Baltimore. Write Dale Warren, Eagle Hill Road, Box 164, RD 7, Pasadena, Md.

**101st Airborne Division.** 30-31 Aug. Penn-Sheraton Hotel, Pittsburgh. Write Col. Leo B. Conner, 1529 18th St. NW, Washington 6, D. C.

**106th Infantry Division.** 25-27 July. General Oglethorpe Hotel, Savannah, Ga. Write James E. Wells, Hepzibah, Ga.

## New Stripes for EM

The Army has authorized nearly 40,000 promotions in the top four grades during the quarter ending 30 June. Breakdown of the quarterly quotas by grade: E-7, 300; E-6, 800; E-5, 5,500; E-4, 33,000. Major commands also may promote, regardless of vacancy, all E-2s recommended by immediate commanders, provided they have eight months of service on the first day of the month in which they are considered. However, certain MOSSs are not included in the appointments and promotions to E-5, E-6 and E-7 during the quarter.

## Master Army Aviator

The new rating of Master Army Aviator may be awarded to officers and warrant officers currently qualified in rotary-wing aircraft who are assigned or detailed in a branch authorized Army aviation and who are senior Army aviators currently on flying status or otherwise qualified.

Master Army Aviators must have been designated Army aviator, senior Army aviator, or liaison pilot in the Army on flying status for a minimum total of 15 years (a maximum of three years as a rated pilot in USAF, USN, USMC or USCG may be applied against the 15 years); have logged officially a minimum of 3,000 hours of flying time in civilian and/or military aircraft.

## General Officer Shifts

Gen. Williston B. Palmer to Deputy CG, EUCOM . . . Lt. Gen. Blackshear M. Bryan to First U. S. Army . . . Lt. Gen. Clovis E. Byers to OASD . . . Lt. Gen. Francis W. Farrell to V Corps . . . Lt. Gen. Lemuel Mathewson to Sixth U. S. Army . . . Maj. Gen. Lewis S. Griffing to USAFFE . . . Maj. Gen. Barksdale Hamlett to U. S. Commander, Berlin . . . Maj. Gen. Daniel B. Strickler to inactive status . . . Maj. Gen. Russell L. Vittrup to Chief of Staff, Eighth U. S. Army . . . Brig. Gen. James O. Curtis, Jr., to USA Element, SHAPE . . . Brig. Gen. Gerald C. Kelleher to 101st Airborne Division . . . Brig. Gen. Francis T. Pachler to ODCSOPS . . . Brig. Gen. William F. Ryan to 4th Armored Division . . . Brig. Gen. David W. Traub to OCA.

## Retirements

Lt. Gen. Ralph J. Canine . . . Lt. Gen. Alonso P. Fox . . . Maj. Gen. Willard K. Liebel . . . Maj. Gen. Earle Standlee . . . Brig. Gen. Maddrey A. Solomon . . . Brig. Gen. Charles H. Swartz.



## BORDER PATROLMAN

When Capt. James P. Lawrence graduated as an Army Helicopter Pilot, he had just turned 40... one of the oldest "cadets" on record. However, he had already flown some 3,500 hours as a fixed wing Artillery Pilot during World War II.

And having qualified for his 'copter rating, he returned to Europe where he flew a Bell H-13 for 33 months. At one time he patrolled 180 miles of the German border each day flying in temperatures down to 25° below. His was the only available helicopter. He was its only pilot. And he had just one mechanic to service it. But, he reports, thanks to Bell's dependability, there were no difficulties at all.

At another time he regularly flew the commanding officer of a widely dispersed regiment on his daily rounds. Capt. Lawrence says they did in a day what would otherwise have taken a week. At present he's Flight Commander for Cargo Training at the Rotary Wing School.



Helicopter flight and mechanical training are available to qualified personnel at the U. S. Army Aviation School, Ft. Rucker, Alabama.

**BELL**  
Helicopter Corp.  
FT. WORTH, TEXAS  
Subsidiary of Bell Aircraft Corp.

## THE ARMY'S MONTH

At long last the foot soldier's feet received their due attention. The American Foot Health Foundation presentation of its Annual Foot Health Award for 1957 goes to the U. S. Army infantryman. The Foundation said it was honoring those "... who have so magnificently demonstrated the true value of healthy feet in human locomotion."

Between 1 May 1957 and 30 April 1958, Army ROTC will graduate 13,480 officers from 253 colleges and universities. Of this total, which includes approximately 700 distinguished military graduates who will accept Regular Army commissions, some 7,825 will be ordered to active duty for two years. Those whose services are not required for this period will be ordered to active duty for six months.

The Army's Mountain and Cold Weather Training Center at Camp Hale, Colo., will be transferred to Fort Greely, Alaska, by 1 July. Its functions will be incorporated into the existing courses at Greeley's Arctic Indoctrination School. Camp Hale itself will be vacated by all but a small caretaker detachment, but will continue to be available as a training and maneuver area for the units stationed at Fort Carson.

Army reception stations and training activities have been alerted to screen and earmark all new enlisted personnel who score high in electronic aptitude tests. If they score 120 or higher, or have a school background of specialized study in electronics and score over 100, incoming individuals may expect to be assigned to a service school for training in the complex field.

Sixty American college women, all seniors, can enlist in the Army Reserve for the purpose of attending a four-week summer course at the WAC Training Center, Ft. McClellan, Ala. Satisfactory completion of the course will entitle qualified women to apply for a post-college commission in the WAC.

Sound the trumpets and beat the drums for the Rev. Elyn M. Adams who has asserted that the full contribution of the American soldier to the growth of evangelism in post-war Japan is "an unwritten chapter in modern missions." This conclusion was not the result of the once-over-lightly technique of quickie tourists who come home to deplore the moral laxness of American soldiers abroad. The Rev. Mr. Adams has spent the last six years as a missionary on the island of Hokkaido.

A Soviet publishing agency has come out with a pirated Russian-language edition of *Realistic Combat Training* by Lt. Col. Robert B. Rigg (Military Service Publishing Co. 1954). *Red Star* reviewed the new edition favorably on 2 April 1957 but couldn't resist the temptation to observe that it revealed the tendency of Americans towards "aggressive war." No copyright agreement exists between the U. S. and Soviet Russia and the state-owned Soviet press does not make any contractual arrangements for Russian editions with U. S. publishers and authors.

The Army saved more than \$16,000,000 in 1956 through the creative suggestions of its military and civilian personnel. Its world-wide suggestion campaign, "Project Paydirt," elicited response at the rate of 136 per 1,000 men,

and the Army hopes to do even better this year.

Thirty-one Ohio State Penitentiary prisoners who risked serious illness by voluntarily testing a tularemia (rabbit or deerfly fever) vaccine were honored by the US Army Chemical Corps with DA Certificates of Achievement.

Communist ideology and military discipline seem to have been clashing again. The *New York Times* reports that *Red Star* and its Navy counterpart have published a directive by the Central Committee of the Communist Party instructing its members who are in the armed forces to stop criticising the orders and decisions of military commanders and to get on the ball with more intensive study of Marx and Lenin in their party cells.

The U. S. Army Field Band on tour in Europe will visit some 50 cities in a dozen countries.

Captain Kenneth M. Elk, Signal Corps, was the first person to telecast successfully from a descending parachute. On 17 March, participating in NBC's "Flight" program, he made a jump from 1,800 feet and a clear picture and satisfactory audio were telecast from coast to coast.

Posters illustrating the six points of the Code of Conduct that embody the high standards of the U. S. fighting man are being distributed to all Army units in the field. From more than 200 sketches by nationally known artists the six best were selected to be DA Posters 21-100-1 through 6 and may be requisitioned through normal AG channels.



### ARMY'S FIRST A-POWER PLANT

The Army's Package Power Reactor, now in operation at Fort Belvoir, Va., is a 2,035-kw pressurized-water nuclear electrical generating plant with net power output of 1,855 kw. This first Army undertaking in the power reactor field was designed to meet the needs of remote military bases and is transportable by air. Built by ALCO Products, Inc., under contract to the Atomic Energy Commission for the U. S. Army, it is intended for possible future use by all branches of the armed services. It will operate for one and one-half years on a nuclear core smaller than a barrel and weighing only a few hundred pounds.



**THE CURTAIN OF FIRE** Air protection for whole cities and strategic areas is no longer in the "talking" stage. It is now being installed—a combination of the deadly fire of NIKE anti-aircraft weapon batteries and the U.S. Army Signal Corps' new Martin MISSILE MASTER. As the country's first electronic system designed to provide an integrated screen of radar surveillance, target detection and fire coordination, MISSILE MASTER makes possible peak effectiveness of anti-aircraft missile battery operation. A measure of the critical importance of MISSILE MASTER is the fact that the system already has been designated for a number of our most vital civilian and military areas. It is one of the most significant defense developments of our time.

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**MARTIN**  
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## AUSA BACKS THE CORDINER PROGRAM

WHO or what kicked up the cloud of dust that threatened to obscure the basic merits of the Cordiner Committee plan to modernize the pay and manpower structure of the armed forces is less important than that every effort be made to get on with the important task of giving Congress an opportunity to study and analyze the proposal as fully as possible. Fortunately this is possible since Senators Symington and Goldwater have jointly sponsored a bill which embodies the program recommended by the Cordiner Committee.

The headquarters staff of AUSA has studied the Cordiner Committee's report. It has conferred with Army officers who served on and with the Committee during its months of labor. It believes that the Army will be well served by the adoption of this modern approach to service compensation. It is convinced that it will benefit the nation, the Army, and every individual serving in the Army. The program offers rewards to the able and competent that are far greater than those presently existing.

We of the AUSA staff are further convinced that the plan must be adopted in its entirety. This does not mean that minor adjustments should not be made. We do mean that piecemeal actions will not provide the right answers to the problem of service compensation. In this we are in agreement with both Mr. Ralph J. Cordiner (President of the General Electric Company and Chairman of the Committee) and Secretary of Defense Charles E. Wilson.

As early as 26 March, Mr. Cordiner stated: "Because of inadequate information, many people have been led to believe that the Committee's recommendations are nothing more than a general pay raise for military personnel, adding still more to the oppressive costs of national defense and to the current forces of inflation. Nothing could be farther from the truth. Our recommendation contemplates savings and deflationary influence."

In the same statement Mr. Cordiner said: "It is the opinion of this Committee, based on both industrial experience and on studies prepared for the Department of Defense, that savings and gains up to \$5 billion a year can be achieved within five years or less. The same measures which can produce these savings for taxpayers could also increase the combat effectiveness of the armed forces by about fifteen percent at present costs."

Mr. Wilson's position was stated in a letter to the Director of the Bureau of the Budget: "The major faults in the present system will not be corrected by . . . patchwork actions alone . . . until we bring our military compensation system up to date we cannot expect to achieve the necessary improvement in quality and balance of personnel skills and experience."

AUSA fully supports the Cordiner program. AUSA believes that if the appropriate committees of Congress thoroughly study and analyze that program, they will recommend appropriate legislation to the whole Congress.

### WHAT THE CORDINER COMMITTEE PROPOSES

- A modern compensation plan to pay people what their services are actually worth, instead of paying people on the basis of longevity of service, and in this way encourage and reward outstanding performance, advanced skills, and military careers for high quality personnel.
- A manpower management plan to provide a means for

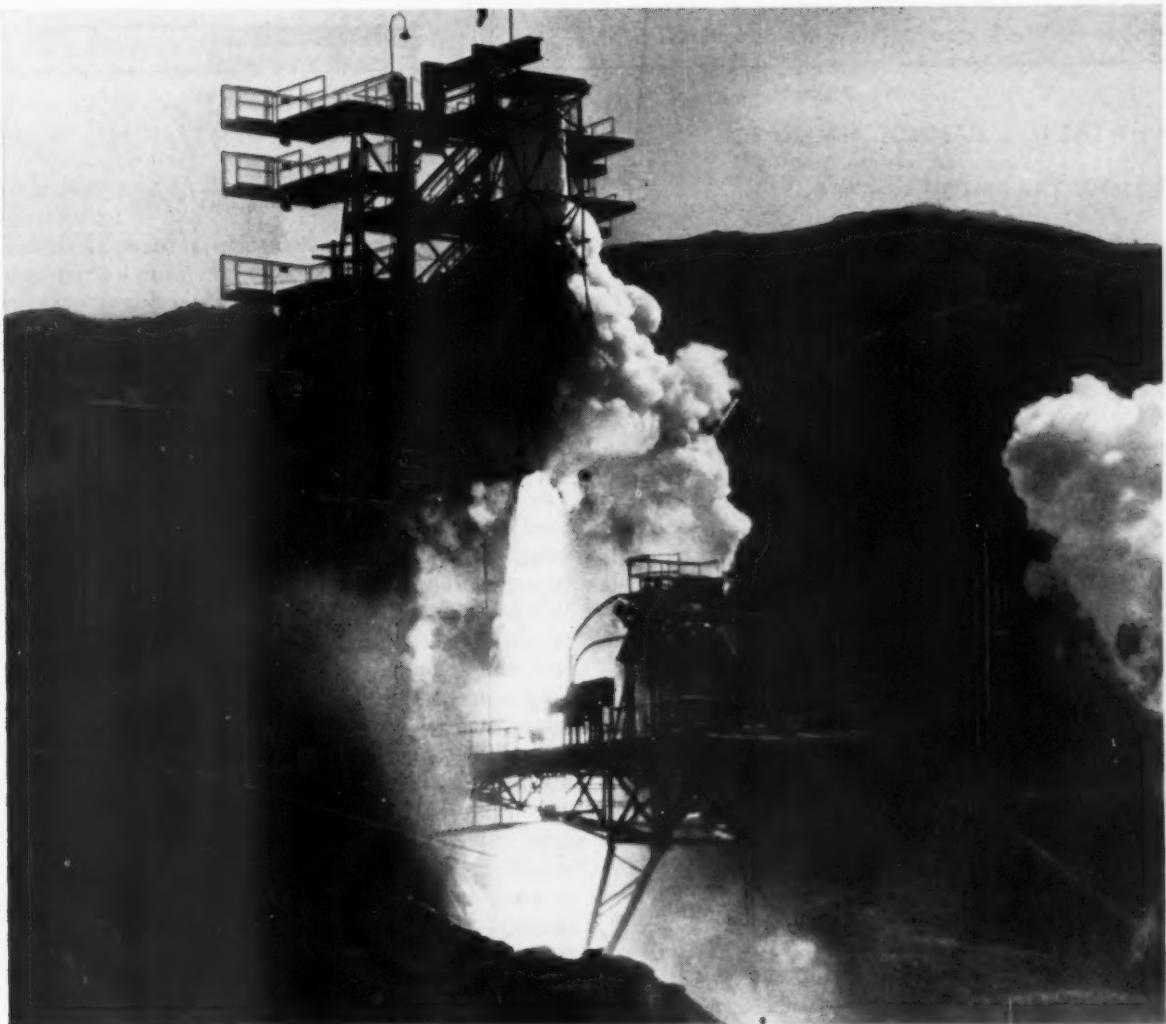
proper and effective administration of the pay plan. This manpower management plan is designed to give the Department of Defense greater flexibility and control over the distribution of skills and experience in the services, and places emphasis on quality rather than quantity.

### . . . AND THE RESULTS THAT WILL ACCRUE

- (1) About a 15% improvement in the combat capabilities of the United States Armed Forces, without a significant change in the budget. Or . . .
- (2) Savings and gains up to five billion dollars a year by 1962—or sooner—in the cost of national defense.
- (3) Sharp reductions in training accidents now, and in military and civilian losses in the event of war.

- (4) Reduction in the number of military personnel required to produce a given level of national security.
- (5) A long-term solution to the basic manpower problems of the Armed Services.
- (6) Improved attraction, retention and motivation of the professional and technical civilian personnel in the Department of Defense.

From the Committee's Letter of Transmittal to the Secretary of Defense



## Powerhouse of America's major missile programs

Every day at ROCKETDYNE'S Propulsion Field Laboratory, deep in California's Santa Susana Mountains near Los Angeles, rocket engines developing millions of jet horsepower are tuned and tested for their ultimate job—to power America's long-range missiles.

These high-thrust engines—developing more propulsive power than anything before produced—are mov-

ing on schedule from ROCKETDYNE for delivery to the Armed Forces. By fall of this year other high-thrust production engines will flow from another plant now being activated by ROCKETDYNE in Neosho, Missouri.

As today's engines are being delivered, ROCKETDYNE engineers are constantly pushing ahead—evolving dramatic boosts in power outputs and engine performance.

This kind of tomorrow-minded engineering—conducted in a private enterprise system—is a keystone in the defense structure of the free world.

If you are interested in further details of ROCKETDYNE's operations, your inquiry is welcomed. Write ROCKETDYNE, Dept. AZ-72, 6633 Canoga Ave., Canoga Park, Calif., or Dept. AZ-72, Neosho, Mo.

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**WHY THE U. S. CANNOT AFFORD TO  
FOLLOW THE BRITISH WHITE PAPER**

## The Responsibilities of Leadership

THE suggestion that the U. S. should follow Great Britain and go on a drastic military diet by reducing the strength of its Army disregards so many fundamental and easily discernible facts and conditions that it is astonishing that anyone would advance it.

It disregards the comparative stature of the two nations. The U. S. today is one of the two great powers in the world, while Great Britain, as she acknowledges, no longer can play such a part. Over and over, the British White Paper speaks of the economic necessity of making adjustments in Britain's defense posture. The Paper in effect asks what would be gained if the strain of maintaining her present military establishment drained away her economic lifeblood.

The United States is in no such economic pinch as Great Britain. Competent economists have suggested that the U. S. could spend even more in defense than it is without harm to the national economy. The U. S. today can no more disregard the obligations of its position of leadership without great danger to itself and the rest of the world than Great Britain could disregard its obligations in the nineteenth century or Rome in the days of the Caesars.

Those who would have the U. S. follow Great Britain disregard the fact that the Soviet Union, despite great propaganda claims to the contrary, has not reduced and is not markedly reducing its military forces. Most recent official estimates are that the Soviet Army has two and one half million men organized into a hundred rifle divisions, fifty-five mechanized divisions, twenty tank divisions, plus supporting units. There is no indication that Russia has reduced her military forces by the 1.2 million men she announced with such fanfare more than a year ago. In addition to the Soviet Union there are some four million men in the ground armies of Communist China and the lesser satellites.

On the word of General Taylor the Soviet Army has been rearmed with newer types of equipment since the end of the Second World War and has more of this kind of equipment than we have. He added that

the USSR is also pushing "very hard in the atomic field."

### Costs of 'the American Way'

Its logistical system may be inferior to the U. S., but the Soviet Union's logistical requirements are far simpler than the demands of our world-wide deployment. The Communists' unconcern with the rights and dignity of individuals relieves the USSR of the administrative burden the U. S. willingly shoulders at a high cost in manpower. A USSR officer would find it difficult to comprehend why the U. S. Army spends so much effort on the individual soldier: doctors and nurses to keep him well; chaplains to give him the consolation and rewards of religion; postal units to deliver his mail; comptrollers to manage endless affairs that affect him; finance officers to pay him; adjutants to keep his records; laundry units to wash his clothes; inspectors general to see that he gets a fair deal; military police to keep him law-abiding; lawyers to see that he gets justice; public information officers to publicize his accomplishments; special service officers to help him have wholesome fun; information officers to give his daily duty larger meaning; and graves registration units to care for his body should he die on the battlefield.

We Americans tend to overlook these things, but we shouldn't. They are not so easily come by as easy acceptance suggests. They require the full effort of large numbers of soldiers, Wacs, nurses, and civilian employees of the Department of the Army.

### U. S. Commitments World-wide

Those who ask why the U. S. Army can't follow the proposed British pattern also disregard American commitments. We will not list here the many military commitments our people have made in their own interests and in the interests of the whole world since 1940. What these commitments may require of us was made clear in Korea after 25 June 1950, and more recently in the Middle East when the Sixth Fleet steamed into the eastern Mediterranean.

Our Far East commitments are vast, our Middle East responsibilities terribly complex and uncertain, and our European commitments, through NATO, place us hard up against the Soviet Union in an area vital to it. We often say that all of western Europe is directly under the guns of Soviet power, but the reverse is also true, and so long as the free world controls western Europe the Kremlin cannot move anywhere with complete freedom of action. Does anyone seriously think that the Hungarian freedom fighters would have rebelled against Soviet tyranny, that Poland would move toward Titoism, or even that Tito himself could long survive if western Europe was not free? The often quoted Communist aphorism that "the way to Paris [or London, or New York] is through Peking" is

Communist recognition that the direct route to Paris will be kept closed to it at all costs.

The importance of NATO armies to the defense of western Europe was stressed by General Norstad during the recent NATO meeting at Bonn, when he asked for a minimum of thirty divisions. The psychological effect on the German people who are being called upon to draft Germans for the new German Army, at a time when both France and Great Britain have reduced or are planning to reduce the number of divisions they contribute to NATO, poses grave problems for the German government and has required the British Prime Minister to confer with Chancellor Adenauer. It is safe to say if the U. S. should indicate a desire to withdraw any part of its Army from Europe, NATO would not long survive.

However, the U. S. has constantly reaffirmed its intention of maintaining Seventh Army in Europe and, indeed, the U. S. Army is presently straining every budgetary and manpower muscle to create additional Army Missile Commands for the support of NATO and other Allied forces. Here, too, is a manpower requirement apparently not easily appreciated. These Army Missile Commands have a fire-power potential undreamed of only a few short years ago, but they are not pushbutton gadgets. They require large numbers of men, many of them highly skilled soldier-technicians, a valuable human commodity in extremely short supply. Indeed, the Army Missile Command in SETAF, the first of these units to go overseas, has been critically short-handed in skilled personnel. Fortunately this condition is being overcome in SETAF, but at possible cost elsewhere.

#### **Missile Commands and Allied Support**

In addition to the creation of Army Missile Commands to support Allied armies with modern fire power, the Army has another large responsibility to the armies of the free world. In Korea we are maintaining two divisions and giving support and training to twenty Korean divisions. Army forces are supporting defense agreements in Japan, on Taiwan, in the Philippines, in Australia, New Zealand, Thailand, Vietnam and Pakistan. The Army is maintaining small combat-ready forces in Japan, Korea and Hawaii. Of the over-all world-wide responsibilities of the U. S. Army today, Secretary Brucker has said:

"The United States is associated with forty-five other nations in the most powerful system of collective security ever created. The Army stands guard shoulder to shoulder with the troops of our allied friends along the Iron and the Bamboo Curtains as a potent reminder that we are ready to honor our international agreements promptly. In support of our mutual defense alliances and other arrangements, forty per cent of the million young men and women in our Army are stationed overseas in seventy-three countries. Army missions in forty-four countries of Europe, Asia, and South America are busy with the continued strengthening of our allies.

Thousands of highly qualified Army troops are directly engaged in helping to train more than two hundred allied foreign divisions—a sizable part of the Free World's military strength."

#### **The Need for an Alert Force**

It seems incredible that anyone would suggest that even a small portion of these 400,000 American soldiers could be withdrawn now or in the foreseeable future without disturbing the security of the United States. These commitments make heavy inroads on Army manpower, but to lessen them would be foolhardy indeed.

Most of the remaining 600,000 American soldiers are engaged in training (and the manpower required to train and administer two-year draftees and six-month RFA 55 trainees can not be minimized), and in the logistical support and other necessary activities of a global army. All these requirements do not leave enough men under present force levels to create the battle-ready, highly-mobile reserve that is basic to our security and is so acutely needed. The deterrent value of such an alert and ready corps has been acknowledged by President Eisenhower and successive Chiefs of Staff of the Army. Such a force is essentially what General Taylor is thinking about when he says, as he has said, that a high priority must be given to the Army's mission of deterring small wars or suppressing them promptly if they break out, "because that small war may easily lead to the great war we are all trying to avoid."

#### **Responsibilities of Leadership**

To understand what would happen if the United States should intimate that it is going to follow the British example, we need only recall what occurred last summer when the so-called "Radford plan" was published. It is possibly unfair to follow the press in so identifying it since the Chairman of the Joint Chiefs of Staff has refused to go farther in acknowledging parenthood than to say that the reported plan (to reduce all U. S. military strength to about 800,000 by 1960) was no more than a "mixture of fact and pure speculation." The point is that the story shook western Europe and moved Chancellor Adenauer to voice great concern. This is a clear warning that the slightest hint by the United States that it was thinking of reducing its military commitments would have far-reaching effects.

These are some of the reasons why the U. S. Army must not be further reduced in strength. Successive reductions since the end of the Korean hot war have brought it to a minimum, perhaps sub-minimum, safety standard by any yardstick. To reduce it further would force the U. S. to relinquish its leadership of the Free World and leave a vacuum which the Communists would rush to fill.

The leadership of a coalition of free nations imposes the same heavy responsibilities as leadership of a combat unit imposes on its commander. The price of evasion of responsibilities is rapid dissolution—and disaster. That we cannot afford.



## Brigadier General S. L. A. MARSHALL

# Arms in Wonderland

WHEN THE MURK BECOMES SO thick that you can cut it with a knife, it is time to seek refuge in Wonderland.

Cried Tweedledum: "I hit everything within reach whether I can see it or not."

Alice laughed: "You must hit the trees pretty often I think."

So maybe it is time to talk about trained fighters—riflemen—whether they are longer needed in great numbers in war and if the free world can get along without people who can draw a fine bead on a clean target.

By the British White Paper within a few years the British Army will be cut to a little more than half its present size.

Already draft pressure is being lifted from certain classes of men. Britain is shooting for an all-volunteer establishment. There is a difference between drawing a blueprint for that stabilized, hard core, professional army which everyone talks about, and getting it when all coercion ceases.

In the United States the draft law runs three more years. The Army will seek to have a new law enacted. Secretary Brucker has so said. If his pronouncement seemed premature, the reason for its timing is still self-apparent.

Britain's cut-back of forces and suspension of conscription make infinitely more difficult the bureaucratic task of holding the line on U. S. military policy. Mr. Brucker but fired the first shot in a fight already half-lost.

If Britain can do it, why not we? It's a natural question in every NATO country. On the heels of the British paper, West Germany talks of building its new army to 250,000 instead of 500,000 men. And that would save not a few marks.

The idea behind the design of Britain's future defense has almost classic simplicity. Even as we, the British are stuck with the principle of atomic deterrence. So they deem it wise to invest more of the military budget in fantastic weapons such as guided missiles and H-bombs.

And there is the other danger—brush fire wars. Some of the seers say they will be recurrent through the new age.

There could be another Korea, Indochina or Suez almost any day.

It is strangely true that in the pre-atomic age, great powers did not fret much about how to cope with small wars. Now the subject is a primary obsession with them. There is universal apprehension that any brush fire if not snuffed quickly may spread and consume creation.

So such army as Britain holds would be reshaped as a jet-propelled bucket brigade.

AT THIS POINT A WHOLLY NEW argument is introduced in the case for army economy. The new forces will be more mobile and one missile battalion will pack more wallop than the whole Western Front artillery. The rest of it can be epitomized in the question: Since these will be small wars, why not fight them with small forces?

It's not less logical than Tweedledum: "We *must* have a bit of a fight but I don't care about going on too long."

According to the figures, there would be little danger of that. At last reading, with most of its force deployed overseas, the British division slice was 90,000 men. For every Tommy Atkins in a combat suit, there were six in the back-up. It's the most extravagant ratio in any army.

Even so, the ratio can't be narrowed by contracting forces unless Britain meantime cuts overseas commitments. When modern armies are cut, the fighting parts are cut the deepest and there is no way to avoid it. Further, the more that technology takes over, the more an army becomes the creature of its heavy weapons complex, the fewer men in ratio can be kept ready for movement to the fire line.

It is a beautiful illusion that mountains of weapon power can be managed by molehills of fighting men. But as Humpty Dumpty said: "I'd rather see that done on paper."

From a British Army of 375,000 men, wherein heavier weapons in the line organization multiply the load on the administrative establishment, there would mature a field army of what strength?

At the going figure, it might be as many as three divisions. When the United States Army was twice as large it could squeeze out six or seven.

The next question is whether a Britain with so little army strength in fighting numbers would stay morally ready to rush any part of it to a distant jungle amid general fear for the security of home base.

Britain nobly took such a chance in her earlier history when General John French advanced his BEF to Mons. But today's problem has little in common with the period of the Old Contemptibles and Kitchener's Mob.

Then Britain really ruled the waves and the skies were relatively free of danger. Great risks could be run in depleting the home mobilization base for the sake of speeding the delivery of forces to a decisive battleground.

**NOW, HOW WHOLLY DIFFERENT** is the situation. Home base remains ever in jeopardy. The nation with an army insufficient to insure full-scale mobilization could go out like a light. The more that forces are pared the greater must become the tendency to hug them hard. That is the way of human nature. The captain with a half-company is ever convinced that he cannot afford outposts.

But still there is a formula in Humpty Dumpty's words: "I can manage the whole lot of them! Impenetrability! That's what I say."

You know the rest of it. Talking about deploying divisions overseas has become Stone Age stuff. One battalion now has the authority of an army corps in former time. It will blast away—bang, bang—hit a lot of trees and by its thunders achieve impenetrability. So runs the argument by which democracies seek to convince themselves that they can slash armies with no loss of deployable power.

The Confederate marched to war shouting: "We can whup those Yankees with cornstalks." Four years later he limped home, minus his shirt, shoes and weapon. To the chaffing of his neighbors about his boast he replied: "The damned Yankees refused to fight with cornstalks."

Maybe the problem is more like that than people on our side have yet acknowledged. Guerillas don't occupy fortresses. Francs-tireurs don't entrench. Irregulars so stay.

**IF THERE IS ONE MAIN LESSON** from the brush fires of this past decade it is that the cat's-paw forces which initiate peripheral wars have a genius for fighting very thin. They are elusive targets because of their ability to sink into the landscape, mingle with the civil population and operate without fixed lines of communication. Sure, they concentrate, or they could not fight at all, but they do not long remain.

To go after such forces with atomic weapons would be like hunting fleas with an elephant gun, though it is being proposed as a tenable theory of operations.

On the other hand, any member of a missile battery is just as vulnerable to a rifle bullet as was a musketeer under Napoleon. And the road leading to a battery firing atomic shells is no less subject to a block following encirclement

than was an average mortar emplacement in Korea. If cut off, the members of that battery will not have any greater will to resist because they are armed with a superior weapon.

Beyond refusing to stay solid, irregular forces have a nasty habit of whittling down whoever opposes them with ambush, sniping and rear area interdiction. If one battalion armed with super-weapons is sent forward, where six battalions armed with person-to-person arms, guts and common sense are needed, the only shock wave which may come of it is the news of its own destruction.

That is how I see it. Not to understand that the enemy in his own country can define and limit the mode of warfare beyond the power of opposing weapons to alter it decisively is mere Braddockism. Diebiengphu was a sacrificial pyre to this mistaken concept that when you have superior arms, you have all.

There is the other question—numbers. Thermopylae and the Alamo are great names because their defenders didn't have them. So they lost. They are also among those singularly rare incidents of history in which men uniformly died game feeling absolutely alone. If they were not uncharacteristic of human nature they would not be renowned.

**TODAY THE IDEA THAT HEAVIER** weapons means an economy of men almost blows a gale. As the White Knight said: "The wind is very strong; it's as strong as soup." One might think that the whole future is to be won through the augmenting of fire power.

But it didn't work out that way in Korea. Certainly, we had vastly superior fire power along every frontal sector. But in the end it availed us nothing but a wasteful stalemate because we had no reserve of trained, willing people.

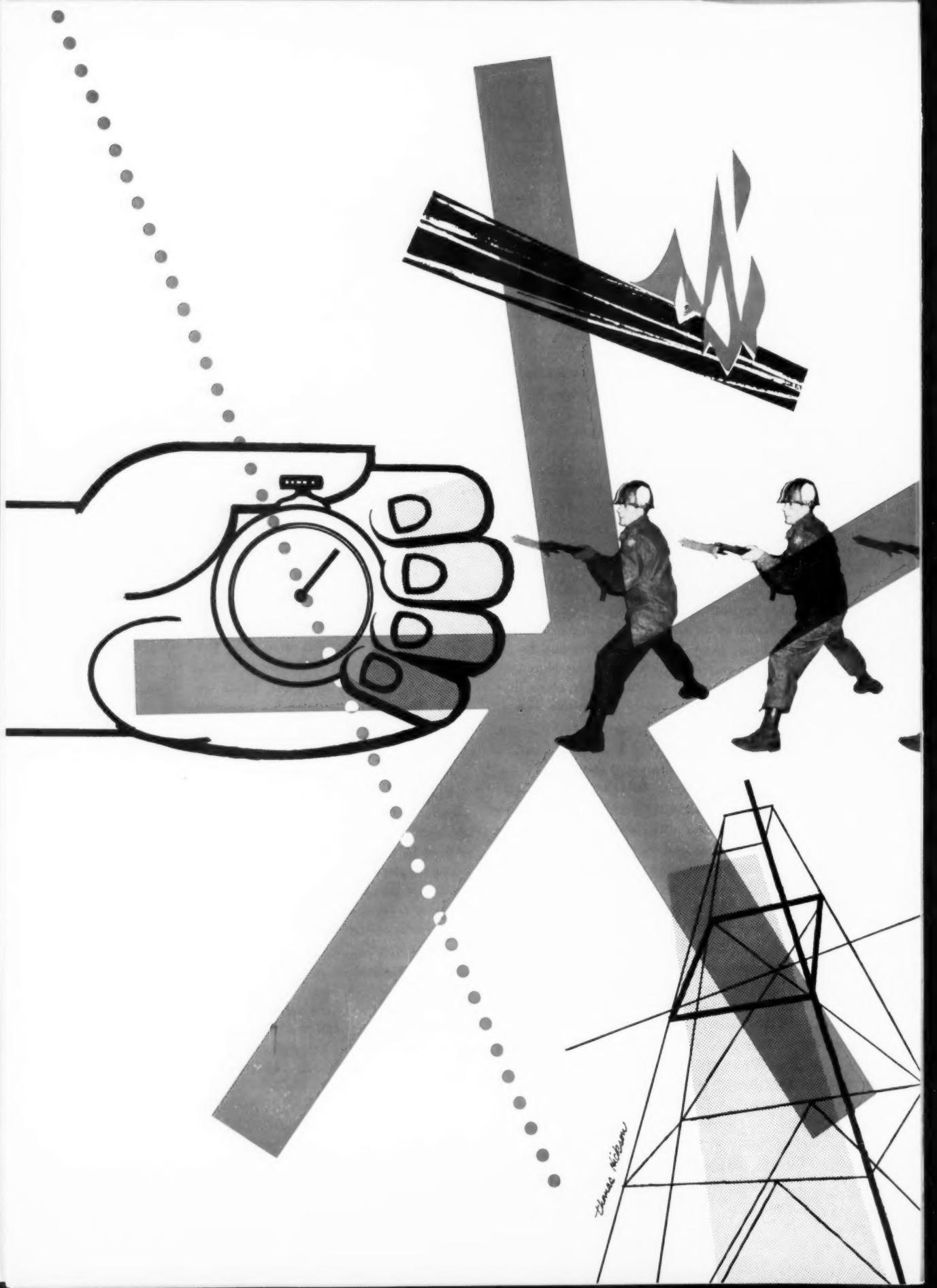
In April, 1953, Gen. Bruce Clark said to me: "I can crack the enemy line with I Corps any time that I am ordered."

I replied: "No doubt, and then where would I Corps go?"  
He said: "Well, nowhere."

There's the rub. Deployable fighting mobility derives essentially from having the decisive count of trained and able bodies. To command superior transportability is good and to be sure that it will deliver a prevailing weapon power to the arena is better. But neither will suffice for victory in the atomic era more than in any other unless an army feels that its weight in manpower affords it on any ground at least an even chance.

Automation has really taken over when the signs multiply that governments and men, under the spell of science, are discounting, if not forgetting, all traditional moral values. The voice which answers: "The spirit of the rifleman and the multiplying of his numbers is no less vital to national preservation today than in 1861," is pretty weak. If it is said too loudly, the speaker qualifies as a candidate for the booby hatch.

It's worth the risk, for unless it is said loudly and often enough, no one will believe. What would come of that is also told in Wonderland by Tweedledee: "It's almost the most serious thing that can possibly happen in battle—to get one's head cut off."



**Victory in atomic war will depend upon men who can carry on under unimaginable conditions of physical and mental stress. The problem is to find them in advance**

# **FINDING THE FIGHTERS**

**COLONEL PATRICK D. MULCAHY**



**I**N the past, the failure of a soldier to stand up under the strain of battle frequently meant his death, the possible deaths of fellow squad members, and even the failure of his platoon to accomplish its mission. The future presents a completely different situation. The picture on the atomic battlefield is a frightening one of overwhelming stresses on an enormous scale. The heightened individual fear and its effect upon larger groups create the possibility of complete panic and the disintegration of a battlefield before the eyes of a commander. Now, on the eve of our transition to an atomically prepared Army, it is imperative that we learn all

we can about the selection and training of men for battle.

Starting with the findings of S. L. A. Marshall on the relative infrequency of actual participation during World War II fire fights and the combat performance research studies—FIGHTER I—conducted in Korea by the Human Resources Research Office (HUMRRO), we have come a long way in the past few years. The Korean research provided a description of effective and ineffective combat performers in terms of their personality traits, physical attributes, aptitudes, attitudes, and life history. Tests developed by HUMRRO on the basis of this information have been refined by Personnel Research Branch (PRB) and translated into aptitude scores.

Where do we stand now in our identifica-

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**Colonel Patrick D. Mulcahy, Infantry, is Chief of HUMRRO unit No. 2 at Fort Ord, California. He reported on research in the training of higher aptitude men in our April issue.**



An examiner measures the pulse rate of a subject who has just jumped from the 30-foot tower

tion of effective and ineffective fighters? Have we been able to provide any corroboration of the characteristics allegedly related to combat performance? At this point the evidence is not at all clear. PRB, combining some of the FIGHTER I battery questions and its own Korean combat-derived selection tests, has attempted to validate the tests by follow-up research in both the ZI and overseas maneuvers. The resultant inventory test has neither been refined nor validated to the point that it can be considered predictive of any single individual's combat performance. Still, at least a start has been made from the selection viewpoint. Giving the FIGHTER tests or PRB's combat inventory test to a large group of men will provide the Army a gross means of assigning more potential fighters to our combat units.

#### The training problem

Obviously, beyond the problem of selection and identification lies the much greater and more difficult task of finding ways to improve the potential combat performance of all our soldiers. At Fort Ord in the spring of 1955, FIGHTER II was initiated, the first deliberate effort to solve the training problem. With no proven criterion of training to substitute for actual

combat performance, the researchers turned to an investigation of performance under stress. Behind this approach were two basic assumptions:

- That men who could successfully perform in a variety of contrived stress situations would in all probability perform in a similar fashion under the stress of actual combat.
  - That training which increased a man's self-confidence would also improve his ability to perform under stress and thus increase his combat potential.
- The biggest problem was to contrive stress situations which held a valid and realistic threat of danger to the soldier subjects and, at the same time, met the stringent restrictions for adequate safety precaution. Unquestionably our American concern for the human being, particularly in time of peace, greatly limited the range and procedures of experimental situations. In a country where human life is less valued, the problem would be simplified. The ingenuity of the researchers was further taxed by the fact that the young American soldier is able to pick out with almost unfailing accuracy any aura of actual safety surrounding a situation. He can "smell a rat" almost a mile away. If our culture produced a more naive subject—again, possibly more prevalent in other areas of the world—the research problem would not be as tough.
- #### Measurement of stress
- Beyond basic stress reality lies another problem: accurate, objective measurement of the subjects' reactions to stress. A further consideration in designing the experiment was the need to use as wide a variety of stress-producing circumstances as possible so as not to limit the research to any one type of performance. The final test battery included darkness, height, explosive noises, fire, and electric shock. Underlying the situations were the subjects' fatigue and lack of sleep, the two common elements which seemed to pervade most experienced combat veterans' descriptions of their battle experiences. Duplicating the conditions of combat was impossible, but fatigue was systematically incorporated into the experiment by the use of forced marches and night testing throughout the five-day test period. A brief description of the stress situations finally utilized follows:
- Each man jumped from a 30-foot jump tower while strapped in a parachute harness. The harness was attached to an overhead carriage which ran down a cable on an incline of 30 degrees.
  - Carrying a rifle with fixed bayonet, each man followed a luminous line on the floor of a darkened room while dummies approached him unexpectedly from different angles, and voices screamed at him from a loud-speaker.
  - While artillery and hand-grenade simulators were detonated around him, each man moved through a Combat-in-Cities course, firing at electrically operated pop-up silhouette targets.
  - Electrically operated pop-up targets were presented at a range of 60 to 85 yards to each man in a perimeter defense situation. He fired at these while six feet behind him artillery and hand-grenade simulators were detonated. Aerial burst and U-80 firecrackers were detonated above and in front of him.
  - Two of the Navy fire fighting situations at Treasure Island were utilized. In one situation, after flames completely engulfed a large open tank half-filled with diesel oil, each subject tried to extinguish the fire with a small hose fitted with a high-pressure fog nozzle. In the other, the space below a simulated destroyer boiler room was flooded with oil almost to the deck plates. The oil was ignited with gasoline and when the fire blazed throughout the structure two teams of men entered the boiler room from opposite hatches to fight the fire.
  - Each man was required to extinguish a small oil fire in an ignited 55-gallon drum, about two-thirds full of motor oil. (This situation was devised to investigate the feasibility of an inexpensive small-scale duplicate of the Treasure Island Open Tank Fire.)
  - A series of reaction problems were presented to each subject who received an electric shock after certain answers. His performance in this shock condition was compared with that on another set of problems done earlier.
- In all, fifty measures of reactions to stress were thoroughly analyzed. These included physiological tests, reaction time in jumping from the tower, pulse rate before and after various situations, changes in marksmanship under stress,

speed and accuracy on pencil and paper tests following fire fighting, strength of bayonet thrust in the dark room, reaction time to pop-up targets, performance in specific skills under shock. The stress performers were also given many of the same background and personality tests administered to fighters and nonfighters in Korea.

What did the tests try to prove? In this exploratory study the researchers wanted to find at least tentative answers to such problems as: which situations were most stressful, whether there was a common underlying factor in reactions to stress, whether a man who performed well in one situation was likely to perform well on the others, and what relationship, if any, existed between good stress performance and good combat performance. All these areas needed to be explored before further steps could be taken on the development of a training program to increase soldiers' combat potential.

#### Stress test results

The results which will bear on future research in this crucial area may be summarized briefly. The situations, as might be guessed by the seasoned military man reading their descriptions, varied greatly in the amount of stress they produced. Very few of the officer observers rated any of the situations as "extremely stressful." The fire fighting at Treasure Island and the dark room situations were ranked by the subjects as the most stressful. The trainees generally described the perimeter defense and village fighting problems as not particularly stressful. Experienced military observers agreed with the subjects on the fire fighting, but rated the jump tower and perimeter defense situations as more stressful than the dark room. (While the simulators apparently recalled combat shell bursts to the officers, they well may have been more like backfires or distractible noises to the young trainee.) The analysis of the fifty measures of stress performance gave some indication that the conditions of fire and darkness constituted independent types of stress, and that such reaction qualities as deliberateness, speed, and accuracy were measurable dimensions of stress performance which would be of particular value in any new test program.

Turning to the subjects themselves, the researchers found that the men differed widely in their reactions to specific stress situations. Furthermore, good

performance in one situation was no assurance that the same man would perform well in another. This, of course, is nothing new. We have all seen the man who could enter a burning building but who panicked when faced with swimming a small stretch of water. We have had men in Airborne training who became immobilized with fear at the open door of a C-47, yet recently had had the job of handling K-9 attack dogs.

What does this specificity of reaction to stress mean in terms of training for combat? Primarily that if the training is to carry over from experimentally-contrived stress to combat stress, it must be designed to raise a man's level of competence in many and various types of performance. And here the second basic assumption mentioned previously is involved. The Korean study indicated that one of the most significant differences between fighters and nonfighters was the former's past history of successful experiences, of participation in sports, hobbies, clubs and other activities which had apparently not only increased their ability to perform successfully under a variety of conditions but had given them a sufficient amount of self-confidence to enable them to withstand even the stresses of combat. The more effective stress performers differed from those who were less effective in the same general way. They, too, tended to be "doers."

#### Importance of self-confidence

At first glance this factor of self-confidence might seem remote from the problems of the atomic battlefield. However, a survey of the curricula and training at seven specialized Armed Forces service schools, including Mountain and Cold Weather training, the Rangers, Airborne, Special Forces, and the Air Force Survival School, has indicated, in the sense of what is actually done, that the experts in charge of these schools recognize the importance of building a man's general self-confidence in the process of increasing his specific skills, be it plane jumping or cliff scaling. Furthermore, the confidence-building events utilized by our hazardous type training school bear a general resemblance to the stress-producing situations used in FIGHTER II.

While the FIGHTER II program's primary purpose was to devise stress tests, it also produced further evidence

on the relation of traits to performance. Unfortunately, some of the background characteristics which differentiated the fighters and nonfighters in Korea did not prove valid in the relationship of traits to good and poor stress performance. In particular, the measures of masculinity and social responsibility did not discriminate in the stress performance. As these trait abstractions are composite pictures of individual characteristics provided by a series of tests, the failure over-all to produce similar relationships is not crucial, since many of the individual tests did provide validation of the Korean fighter trait relationship. Another conflict lies in the area of intelligence. In Korea, where the low mean or average of the FIGHTER I sample was about 85, the more intelligent soldiers were demonstrably better fighters. In the Fort Ord FIGHTER II stress testing program, the sample had a much higher mean of 102. With as high a mean as 102, it is not particularly significant that the clear relationship of intelligence and performance did not fully hold true in the stress testing program.

Until we have an actual combat

**Army researchers used the facilities of the Navy's Treasure Island fire-fighting school to measure reaction of men quenching a fire in an open oil tank**



situation it would appear that validating the relationship of trait characteristics to effective combat performance is not the most hopeful approach to the future, with perhaps but one exception—the "doer." The most consistent trait characteristic in all the research has been the concept of the "doer." This characteristic held up as well in the stress testing as it did in Korea. As this trait has to do with the stresses or obstacles an individual must go through or overcome in his normal life, it clearly underlines the concept of self-confidence, the assumption that by building self-confidence in the soldier you will improve his performance in combat.

#### Military evaluation

What is the military evaluation of these results? The Medical Section officers of CONARC, recently analyzing the report of the FIGHTER II project, felt that an excellent start had been made, but stated: "The stress situations are a step in the right direction but the personnel being tested were always aware that there was little actual danger involved in the tests." They cited the tower jump, where the individual is personally threatened by the pull of gravity, as the type of fear circumstances needed. With the training devices the Army is presently required to use, the trainee is fully conscious of the actual safety of the apparatus.

Looking ahead we see that the researchers, with the specific approval of higher military authorities, must accept a higher casualty risk. In the problem of providing basically stressful situations which constitute a valid threat even to a perceptive soldier, safety or even life is the nub of the matter. Can we design hazardous incidents to produce periods of heightened danger and the relatively few moments the individual perceives an immediate threat to his life? Unless these split seconds of fear can be contrived, and in such a way as to permit objective measurements of reaction, we may never solve our problem. Our final consideration is that of fatigue. No single incident on the battlefield can be separated from the strain of prolonged exhaustion. For this reason, the Army research team must improvise better means for inducing a reasonable equivalent of the mounting fatigue and chronic anxiety of combat.

The atomic battlefield crystallizes

the training problem in its most fundamental form. Beyond the known stresses of combat, it poses the problem of a new, different, nonspecific, more generalized fear of the unknown such as is engendered in men operating under the threat of a force beyond their own individual control, perhaps even beyond the control of those above them. The nearest equivalent in nature and our own experience may be the catastrophes provided by large-scale floods, tornadoes, or earthquakes. Can the researcher find ways of conditioning soldiers to the threat of the immeasurable forces of nuclear fission? Statistically, of course, it could be demonstrated to the soldier that he is more apt to lose his life while driving his new stationwagon than on the battlefield. Or again, that he is just as dead ripped by a grenade fragment as seared by an atomic blast. Are we looking for a demonstration of fatality? From the historical viewpoint, it might be pointed out that man and mankind are wondrously adaptive, and that given sufficient decades all of us might become habituated to the use of atomic bombs. Unfortunately we have neither the time nor the expendable citizens for this kind of development. Can we now go even further and incorporate the problem of atomic blast itself into the next phase of research? Certainly the face validity of the threat of death to any individual within the atomic blast area is high. Further, the variability of wind conditions and possible radiological fall-out might well create the realistic heightened stress we are looking for. Can it be done within our existing safety restrictions and extra precautions possibly imposed by AEC controllers? If feasible, such a situation would not only fit the specifications indicated by previous FIGHTER research but would serve as the most adequate combat substitute yet devised to test the efficacy of an experimental training program.

#### The future research problem

With so many complexities is there any chance that the researcher and Army trainer can evolve a program which is at once realistic, practical, and scientifically validated? What's the use of all this if we can't prove it by combat? Nothing is more complex than this problem and there is no guarantee that a realistic training program can be developed. There is no real substitute for actual combat. On the other

hand, if the Army adopted anything other than a philosophy holding that the ability of any man can be improved through training, it would have no reason to conduct training at all. Further, the purpose of the Army's scientific research organizations is to apply new knowledge and experimental techniques to the problems proven most crucial and least susceptible to in-service solution. General Wyman has stated it this way: "I feel that with experience under our belts, it is time to branch out into the toughest and most far-reaching of the Army problems which are implicit in the name of the Human Resources Research Organization. . . ."

Here in the fighter performance area we have a problem so crucial to our Army and our country that any slight increment of new knowledge derived from training research might well spell the outcome of a future battle, campaign or war. The difficulties of further research in the area can not be over-emphasized. Never before have we had such a need for the abstractions and hypotheses of the social scientist to be firmly grounded to our Army's practical know-how and experience. A kid-glove approach, or anything other than insistence on more intensified stress situations, will yield inconclusive results.

Regardless of the extent to which we can improve our selection and assignment instruments or validate trait characteristics, the Army basically must develop a practical training program to improve the combat potential of each mobilized soldier. By practical, we mean that the program must be given by the average officer and non-commissioned officer to the average trainee at the average mobilization post in our country. There is no doubt that the major problem is finding realistic, intensified stress situations within the limitations of safety and the feasibility of research measurement. The atomic fall-out situation with close troop participation has already been suggested as an approach the Army should carefully investigate. Increased know-how on weapons effects and the existence of small-yield atomic devices make such a testing method more feasible.

The researchers can use every bit of military experience and ingenuity, and any Army trainer who can throw light on the problem could do his service no greater benefit than relating his knowledge and/or guess to the Army research team.



***It constantly must be borne  
in mind that successful lead-  
ers are not all of the same  
pattern. . . —FM 22-10***



# Look at the Cloth

**SERGEANT FIRST CLASS FORREST K. KLEINMAN**

**O**NE warm spring day in 1847 two men met in a field tent on the tortuous road from Vera Cruz to Mexico City. One was a highly considered captain of Engineers who had been hand-picked by General Winfield Scott to serve as his chief of staff. Standing tall and ramrod straight in his immaculately tailored uniform, with a touch of gray at his temples and the stamp of good breeding on his lean, handsome face, he was a casting director's dream for a stellar role as a military leader.

The other looked more like a bit player. He was a short, blunt-featured, slouchy, almost seedy young lieutenant of Infantry who acted as commissary and quartermaster for one of Scott's regiments.

Their conversation on this occasion was brief and to the point. The captain glanced at the lieutenant's mud-spattered field kit and said crisply: "You're out of uniform, Mister. The commanding general has prescribed full dress for officers visiting this headquarters. Return to your headquarters and comply!"

"Yes, sir," said the lieutenant.

One warm spring day, eighteen years later, they met again in a Virginia farm house south of Richmond. The contrast in men was as marked as before. The tall man now wore gray instead of blue, wreath with three stars instead of bars, and time had whitened his beard and weathered the skin around his eyes. But his carriage was as erect, his manner as unruffled, his dress as impeccable as when last they met.

The intervening years had thickened the infantryman, and now he wore a beard. But just as before, his shoulders

stooped and his uniform was so stained and spattered with mud that the three stars carelessly stitched to a private's blouse would have looked out of place to anyone not knowing the events which had put them there.

This time their conversation took a little longer, and this time, when the mud-spattered man in blue returned to his quarters both knew that the world would never again be the same. Never again would the union of our nation be challenged. Never again, moreover, would the education of any military leader be complete without careful study of the lives and works of Ulysses S. Grant and Robert E. Lee.

#### **Superficially more unlike than alike**

When biographies of Grant and Lee are leafed side by side, the contrast leaps to the eye from each page. Lee was the son of the famous "Light Horse Harry" Lee, and the descendant of many generations of leaders; Grant was the son of an Ohio farmer who became a successful tanner and leather merchant. Lee was encouraged by his mother to seek a career in the Army; Grant's appointment to the Military Academy was forced on him by his father. Lee was one of the most brilliant students in tactics and academics of his class; Grant was one of the poorest.

At every point of comparison, there is a paradox. Lee enjoyed the life of the professional soldier; Grant detested it. Lee liked to hunt; Grant couldn't bring himself to pull a trigger. Grant used alcohol and tobacco; Lee used neither. Lee was stirred by martial music and marched like a guardsman; Grant was tone-deaf, hated parades, and had trouble keeping step!

To learn about leadership from a study of Grant and Lee, you must look behind the façade of surface contrasts in manner, habit and appearance. When this is done, the greatest paradox of all is revealed: *Grant and Lee*

**Sergeant First Class Forrest K. Kleinman** has written several articles for ARMY. His latest, "Take a Tactical Walk!" was in the March issue. He is on duty in the Information Section of USCONARC.

*were more alike than they were apart!*

The resemblance can be found quite early in their lives. As seen through the eyes of their contemporaries, both were intense, serious young men of considerable energy and force. Though quiet-spoken and reserved, both made an impact on people. They were not easily moved, forgotten, or ignored. Their potential for leadership was recognized by others long before they won fame.

#### **Basically the same interests**

Despite Grant's mediocre record as a cadet, one of the most brilliant members of his class—George Deshon—predicted that "Grant some day will prove himself the strongest member of his class." Similar recognition of Lee's potential was evinced by awarding him the coveted post of Cadet Adjutant.

Another early point of comparison is their relative standing in mathematics which Napoleon termed "the first tool of generalship." Although Grant showed little interest in other subjects, he as well as Lee excelled at math.

Just as noteworthy is the fact that both Grant and Lee loved horses and were skillful riders. Without this aptitude in common, it is doubtful that they ever would have confronted each other as leaders of opposing armies. In those days a general who couldn't ride a horse well would have been almost useless.

Shortly after that meeting on the road to Mexico City, the engineer and the doughboy demonstrated that they shared leadership qualifications that will never go out of date: courage, audacity, initiative, ingenuity.

#### **The Mexican War testing ground**

Although still assigned as a commissary and quartermaster, Lieutenant Grant "happened" to be with the assault troops during the attack on San Cosme at the outskirts of Mexico City. Noting that a church steeple commanded the rear of the enemy's defense position, Grant improvised a small task force around a borrowed mountain howitzer to flank the enemy and occupy it. The fire from the howitzer was so effective that General Worth sent a staff officer—Lieutenant John C. Pemberton, who later was to surrender Vicksburg to Grant—to compliment him on his church services.

A few days before, it had been Lee who was commended. During the advance on Mexico City, Lee was with an enveloping detachment which he

had guided through a hilly maze of rock and lava to seize the village of Contreras. The enemy had rushed up reinforcements and, by nightfall, the detachment's position was far from secure. At a council of war held in Contreras church, Lee proposed a bold plan of the very type he later employed with classic success at Chancellorsville. He suggested that the detachment be divided, leaving a holding force to keep the enemy's attention on Contreras while the remainder marched by night to a position from which the Mexican entrenchments could be enveloped. The detachment commander readily adopted the plan. For it to be successful, however, General Scott must be informed, so that the main body could keep the enemy's front engaged.

Meanwhile, Old Fuss and Feathers was anxious for news of the detached column. Seven officers had been dispatched to establish liaison and all had failed to get through. Accompanied only by an orderly, Lee returned through enemy-infested hills with the precious information. In his dispatch General Scott said: "The brilliant victory of Contreras was made possible by Captain Lee's services that night."

There are specific points of similarity in these two incidents in the lives of Grant and Lee which merit emphasis. Both men disdained the timeless philosophy of the mediocre: "Play it safe; let someone else stick his neck out." Both were quick to risk failure and possible death to achieve positive results. Both assumed responsibilities beyond their rank and duty. Both impressed their wills upon their fellow soldiers in moments of crisis. Both speedily improvised a sound tactical plan to further the over-all mission within the limitations of time, terrain, the enemy's and their own capabilities. Both insured by personal action the vigorous execution of their plans.

#### **The influences of Scott and Taylor**

Much has been made by biographers of the influence that General Scott exerted on Lee in contrast to the influence on Grant of General Zachary Taylor. Certainly it is true that Grant was like Old Rough and Ready in his habits of dress and his dislike of pomp and ceremony, and the outward resemblance between Lee and Scott is equally striking by comparison. It is apparent, however, that these superficial resemblances existed before the men met each other. To the military stu-

dent it is much more rewarding to consider what Grant and Lee learned from both generals during their separate campaigns in Mexico.

From Scott, Grant learned that an army can, if need be, operate successfully without a secure base of supply—a lesson he surely remembered and boldly applied during the Vicksburg campaign. From Taylor, Grant learned the importance of "doing your best with the means provided instead of demanding more from higher headquarters."

From Taylor and Scott, both Grant and Lee learned the military importance of establishing good relations with the civilian population by close control of the conduct of an army in the field. Both later exercised this command responsibility to real military advantage.

That both future generals were keen observers of the tactics and logistics employed by their superiors is evinced by Grant's memoirs and Lee's letters. There is one lesson that Lee had better opportunity to learn from Scott than did Grant: the use of a staff. But Grant learned from Lee what Lee already knew: the combat employment of engineers. In fact, Grant credited the work of Lee and his fellow engineers with a large responsibility for the success of Scott's campaign. This ability to learn by observation and experience is one of the most important of the many traits of mind shared by Grant and Lee.

A fundamental similarity of character is apparent in their marital as well as their martial lives. Each was devoted to his wife, and his love was returned in full measure. Those who take literally the saying that "an Army officer can make colonel on his own, but needs the right wife to win stars," may deem it significant that Grant and Lee married their intellectual and social peers.

Clausewitz has said that "the thirst for honor and renown" is indispensable to the character of a successful leader, and in his discussion of "the Genius for War," he poses the rhetorical question: "Has there ever been a great commander destitute of ambition, or is such a phenomenon even so much as conceivable?" But Clausewitz was not a great commander and it is becoming more and more apparent with every thermonuclear explosion that his concept of war as "an act of violence without limit" may have a fatal fallacy.



The surrender scene at Appomattox where Lee in defeat carried himself with the dignity of the true gentleman and Grant in victory showed his greatness in magnanimity

In any event, the Pied Piper of modern military thought died of a rat-borne disease without ever leading troops in combat, long before Grant and Lee wore stars.

#### When the nation split

As soon as it became apparent that hostilities between the States were imminent, President Lincoln offered Colonel Lee the highest military post to which an American soldier can ever aspire: command of the active Army of the United States. Three months later, Lee was preparing to enlist in a Confederate cavalry regiment as a private when he received a commission to command the Virginia state forces. This may have been the act of a misguided man, but never an ambitious one.

At the same time that Lee was preparing to join the cavalry as a trooper, Grant was about to return to the leather business, having declined "election" as colonel of several Volunteer regiments. While virtually everyone in Illinois who had ever worn uniform was feverishly angling for a command, Grant merely wrote a letter to the War

Department offering his services. By one of those ironic quirks of fate that occur so often in the affairs of men whenever great moves are afoot, three misspelled words caused it to be misdirected, filed—unanswered—and forgotten until after the war.

About the time that Jefferson Davis was signing Lee's commission, Governor Yates of Illinois was expressing his bewilderment at Grant's lack of ambition to a mutual friend from Galena. The friend replied that Captain Grant was not one to seek personal preference and did not believe in the practice of "electing" Army officers. If the Governor wanted Grant to command a regiment, he would have to appoint him.

To both Grant and Lee leadership was a sacred trust—never the reward of mere ambition. They were men of honor, not men in pursuit of it.

At a time when there is a growing tendency on the part of our people to regard war solely as a science rather than an art, there is reason for considering that our two greatest American captains devoutly believed that God is the supreme arbiter of war. It was

his practice in battle, Lee said, to bring his troops to the field in the best possible way and then "commit them to God and my subordinates!" In a letter to his wife during the retreat from Gettysburg, Lee wrote: "I trust that God will not desert us in this hour of need and will deliver us by His Almighty hand. . . . We must, however, submit to His Almighty will whatever that may be!"

Grant held the same concept of a Divine will in war. In his memoirs, he even expressed his belief that the Civil War was a Divine punishment upon the nation for its unprovoked invasion of Mexico. Nevertheless, the resolution, perseverance and self-reliance displayed by Grant and Lee in conducting military operations leaves no room to doubt that they also believed in the corollary: "God helps those who help themselves!"

At the very outset of hostilities in the Civil War, both men displayed the "sense of position" which marks the strategist and distinguishes him from the leader who is only a tactician at heart. In the West, Grant immediately recognized the strategic importance of controlling the confluence of the Tennessee and Ohio Rivers at Paducah,

Kentucky. Without order, acting entirely on his own initiative, he seized with his green troops. In the East, it was Lee alone who instantly recognized the need to block the three main avenues of approach to Richmond. With remarkable prescience, he even predicted that Manassas would be the scene of one of the first battles. As the result of his urgent recommendations to Jefferson Davis, the Confederate armies had the advantage of thorough familiarity with the terrain on which the early battles were fought.

#### Shiloh and Gettysburg

Some men like Homer Lea seem to be born with a "sense of position." But Grant and Lee acquired it early in life by constant observation and study of terrain with an eye to its military possibilities. In the words of General W. G. Wyman, every routine journey they took was a tactical ride, and they could see a unit problem from every window of any house because they made a habit of looking for it.

Once a reader begins to look in their biographies for similarities of character, these too leap to the eye from every page. Grant's letters to subordinates are masterpieces in the use of the written word to transmit the thoughts of the military commander; Lee's letters to Jackson communicated the thought for that masterpiece of military maneuver—the Shenandoah Valley campaign. Grant was his own G3; Lee was his own G2. Grant was the last man up the gangplank in the hard-fought withdrawal to the transports at Belmont; Lee's front-line riflemen forcibly restrained him from personally leading an attack in the Wilderness. Grant was so admired by the officers of his Illinois regiment that every one requested a transfer to go with him when he left; Lee's troops spontaneously cheered him even in defeat.

When all appeared lost at Shiloh, Grant showed what Napoleon called "three o'clock in the morning courage," and salvaged all he could from the day; so did Lee at Gettysburg, where he withdrew his battered army so skillfully that Meade lost an opportunity to end the war. Grant was called "the Quiet Man" by his Illinois regiment; Lee never raised his voice to a subordinate—not even to Longstreet, who on more than one occasion disobeyed him with adverse consequences.

Of the many other similarities of character revealed by their lives and

works, one is especially significant to military leaders in this age of nuclear fire power. Both men had strategic concepts that were prophetic of twentieth century military doctrine. They visualized war in the round and saw the future consequences of immediate acts.

#### Similar strategic concepts

To win quickly and thus bring the fratricidal conflict to an early close, Grant believed that the Union forces needed to do more than win battles in the field. He believed they must destroy the South's war potential. His plan to end the war by keeping a relentless pressure on the throat of the Confederacy with one army in northern Virginia, while another clawed out the soft underbelly, merely applied his concept to operations.

With similar foresight, Lee conceived the North's will to fight as the target of Confederate strategy. This concept dictated the invasion ending at Gettysburg. Thereafter, he sought to implement his concept by delaying action, in the hope that the North's will to fight would weaken and die under the psychological impact of heavy casualty lists.

In considering the modernity of both concepts, one is struck by the difference between the way they have been implemented at times during the twentieth century and the way they were applied by Grant and Lee. No woman or child ever died by their orders. No defenseless city was ever levelled by their guns. To the minds of Grant and Lee, war was an art—not an act of violence without limitation as it was to the mind of Clausewitz and his disciples. To them, it was not an "absurdity" (as Clausewitz termed it) to proportion destruction to the purpose in war. With the true instinct of the artist, they realized that restraint is as essential to creation as force. They believed in limited warfare, and practiced it.

#### Strengths and Weaknesses

Even where their biographers find fault with Grant and Lee, the so-called flaw in their characters was basically the same. Lee has been criticized often for placing too much trust in the judgment of his lieutenants. As President of the United States and later in business, Grant has been criticized for doing exactly the same thing with his associates. Their critics do not always recognize that trust begets trust. It was

because their trust was returned by their subordinates in battle that Grant and Lee achieved as much as they did.

"As the French would say," wrote Major General Sir Frederick Maurice, "Lee was the victim of his qualities." So was Grant!

At Appomattox, Grant displayed the crowning quality of the truly great soldier: magnanimity toward a defeated foe. (As Lee had done earlier and MacArthur did later.) No wiser sentence has ever been penned in the English language than the one Grant wrote which permitted the officers and men of Lee's army to sign paroles and go home "not to be disturbed by the United States authority so long as they observe their paroles and the laws in force where they reside." Backed by his personal popularity with the public, it effectively restrained the vindictive politicians and restricted the fratricide of the Civil War to the battlefield.

In the light of all that preceded this final meeting of Grant and Lee, their differences in manner and physical appearance melt from the mind. Only the basic similarities in character remain worthy of serious consideration by the student of leadership.

Both were dedicated men of high ideals who selflessly applied themselves to the art of war. Both were "servants" who were too busy serving others to serve themselves. Consequently, they were austere in their personal habits and often shared the hardships and dangers of combat with their troops. Both developed and exercised the capability to apply intense mental effort to complex problems. They thought, while lesser men slept. Both learned to express their thoughts clearly to others with the oral and the written word. Both practiced great self-control in the crises of battle. Both were men of enthusiasm who could inspire others to rise with them to the occasion.

Both men were *generals* in the original sense of the term. I consider it no idle coincidence in etymology that the word *general* is so closely related to *generate*, meaning *to cause to be, to procreate*.

While it is true that "successful leaders of the past were not all of the same pattern," a study of Grant and Lee leads to the conclusion that the cloth of greatness is the same. From this conclusion, a useful maxim can be drawn: To learn about leadership from the lives of great men, don't look at the pattern—look at the cloth!

Whether ballistic missiles are birds or bullets continues to disturb many persons. The thinking of Soviet military leaders on the subject as culled by a well-known and respected Soviet scholar is reported below. Because of his position he had to request anonymity.

## Missiles Are Artillery, Soviet Leaders Say

In its June 1956 issue *ARMY* magazine reminded us that "in ballistics, the Army has the know-how."

It pointed out that ballistic missiles perform essential missions, including long-range strikes "in support of Army operations." In November, Secretary of Defense Wilson issued his now famous memorandum "clarifying" roles and missions, which stipulated that the Army should not "plan at this time for the operational employment of the intermediate range ballistic missile or for any other missiles with ranges beyond 200 miles." Since no reference was made to missions and target systems, the basis for this limitation must have been a judgment that the IRBM was more suited to the U. S. Air Force because it is more accustomed to handling aircraft, and because conventional artillery does not fire at such long ranges. But when a ballistic missile is fired on a target 300 or 1,300 miles behind the "front line" (assuming there may be a recognizable MLR) isn't it performing the same mission? Doesn't it require the same skills as those required to fire a rocket or ballistic missile at an identical target 30 or 130 miles from the launching site? Aren't all ballistic missiles long-range artillery?

After asking these questions it is interesting to have the Soviet point of view, which is very clearly stated.

Listen to Colonel General of Artillery N. S. Fomin in *Sovetskaia Rossia* (18 November 1956): "Long range rocket weapons . . . constitute a variety of artillery. Now artillery can be employed . . . also far beyond the limits of the tactical zone of operations of the ground forces."

Colonel General of Artillery F. A. Samsonov, in a Radio Moscow broadcast (17 November 1956) similarly spoke of "long-range rockets, a variant of rocket-firing guns. Thus we witness a new qualitative leap in the development of artillery."

Marshal of Artillery M. N. Chistiakov in *Red Star* (18 November 1956): "Artillery, especially rocket artillery, can be used for firing atomic projectiles not only in the tactical zone of operations of the ground forces and in their direct interests, but also along with long-range aviation for strategic purposes." Mind you, not as part of strategic aviation, but along with it—as long-range artillery. The IRBM and ICBM are thus classed as variants of rocket artillery.

These statements by prominent Soviet artillerymen are by no means an expression of their personal or "branch" views in contrast to those of other services. There may be differing opinions by individuals in the Soviet armed forces, but such statements can represent only authorization and reflection of considered judgments of the Soviet military leadership.

The Soviet recognition of long-range ballistic missiles as artillery is a long-standing one. As early as May 1946, Lieutenant General M. Gerasimov predicted in *Voennyi Vestnik*: "The significance of rocket artillery, difficult to detect, and capable of firing projectiles with sufficient accuracy to destroy targets located hundreds and possibly thousands of kilometers away, will grow." To cite but one other reference, Lieutenant General of Artillery P. N. Kuleshov in *Za Oboronu* (January 1947) said that "a great future opens for rocket artillery, especially for long-range artillery," and spoke further of "rocket artillery of strategic significance."

These statements of professional Soviet military leaders should be of interest to all Americans. They show the direction of Soviet thought and the hard-headed realism of Soviet military leaders in making force allocations.

# When Uncle Sam

**Why and how Congress  
provided for the legal  
protection of soldiers  
haled into foreign courts**

**Lieutenant Colonel  
EDWIN G. SCHUCK**

WHEN the Senate consented to the President's ratification of the NATO Status of Forces Agreement in 1953, it did so after lengthy, sometimes bitter, debate. That the Senate had misgivings the resolution expressing the "sense of the Senate" in consenting to ratification shows. The concern was over the fact that members of U. S. military services could find themselves under the jurisdiction of foreign courts. The latest manifestation of that concern is the Act of 24 July 1956 (Public Law 777, 84th Congress), which provides for the furnishing of legal counsel, at the expense of the U. S. Government, to soldiers, sailors and airmen, civilian employees, and accompanying dependents who may be tried in foreign courts for violation of foreign law. The legislation fills a real need. Without it, the American soldier, sent to a land with whose laws and customs he is unfamiliar, might well find himself in an extremely uncomfortable position should he be haled into a foreign court on criminal charges. It would be a mistake to conclude that the ordinary United States citizen in uniform, serving overseas, will never be tried for a crime in a foreign court, simply because he is basically a law-abiding citizen. Entirely aside from the fact that he isn't familiar with the law

to which he is subject, it is a peculiarity of the civil law, applying in most of the countries included in the NATO Status of Forces Agreement, that an act which normally would result in nothing more serious than a civil suit for damages in the United States (for example, negligently colliding with another car) can result in a combined civil-criminal trial. The judgment of the court, if the accused is found guilty, includes a criminal penalty (fine or imprisonment) as well as an award of damages to the injured party. As a result, any traffic accident is likely to result in a criminal trial, since this is the standard procedure by means of which the party injured in an accident collects damages. The importance, to the American serviceman, of having a qualified attorney for his defense is obvious.

## **What to expect**

What may the United States serviceman expect by way of assistance when he finds himself at odds with the law of a foreign state?

The Act is permissive in character; it *authorizes* (but does not require) the service secretaries to employ counsel, pay counsel fees, court costs, bail and incidental expenses, and it provides expressly that the amounts so expended by the Government in behalf of the personnel protected shall not be reimbursable—with the single exception of the case in which the culprit forfeits the bail posted for him.

The Army has provided for the implementation of Public Law 777 in AR 633-55 (24 August 1956). This regulation delegates authority (to furnish the benefits made available by the Act) to the officer exercising general court-martial jurisdiction over the de-

**Lieutenant Colonel Edwin G. Schuck**, JAGC, entered the Army as an artilleryman in 1940, was integrated in 1946, and transferred to JAGC in 1951. He has been an instructor at the Coast Artillery School, a military government officer in Japan and an economics officer at SCAP, and served on the JA staff at USAREUR. He is in the International Law Division of OTJAG, U. S. Army.

# Defends You

fendant. The determination whether the requested benefits will be granted lies within the sound discretion of the officer concerned, but the regulation provides criteria for his guidance. Like the statute, the regulation is permissive, not mandatory, and provides that counsel fees and other expenses *may* be afforded the defendant when his offense occurred in the performance of official duty, or where the sentence normally to be expected includes confinement for more than six months, or where capital punishment may result from trial, or where the accused is appealing from a denial of his legal rights. In addition, the benefits of the law may be extended to a case which does not meet one of these criteria, if a particular interest of the United States is involved, or if the case may have a significant impact on foreign relations.

#### Protection for deserters?

The comment has been made that in view of the purpose of the legislation, the regulation should make it mandatory that counsel be furnished for any accused whose case falls within the scope of the criteria. Situations may be imagined, however, in which it would not be desirable to furnish counsel, even though the criteria should be met. What, for example, of the wartime deserter who now, more than ten years after the war, finds himself facing prosecution for murder in a foreign country? He is still subject to military law, and so meets this broad condition contained in the federal Act. Nevertheless, it is a fair presumption that Congress never meant to furnish counsel fees, bail, or other expenses to an unapprehended wartime deserter who should commit a crime against foreign law. It appears, therefore, that the per-

missive character of the legislation and of the Army Regulation is based on sound policy considerations.

#### Fees are regulated

The fact that the Army can now provide counsel fees for accused soldiers does not mean that foreign lawyers have hit a jackpot. The regulation carefully provides that fees payable should conform to such amounts as would ordinarily be paid by nationals of the foreign country under similar circumstances. Even American lawyers who have established offices overseas and are admitted to practice law in foreign countries must set their fees accordingly.



The accused, under the Army Regulation, selects his own counsel from approved lists, the lists being coordinated with native bar associations and the local American diplomatic representative. Although the defense counsel so selected represents the accused, rather than the United States Government, the regulations provide—presumably in order to protect the interests of the defendant as well as to protect Uncle Sam, who is paying the fee—that the officer approving the retention of counsel must reduce the terms of his agreement with the lawyer to writing.

In a further attempt to insure that the military accused shall receive adequate professional counsel as soon as possible, the regulation also suggests that a judge advocate be designated as contracting officer.

#### Other items covered

The regulation is generous in its coverage of other items, providing also for payment of court costs, bail, fees for copies of records, for printing, filing, interpreters, for witness fees and for other reasonable and necessary expenses. Nor is a criminal charge the only basis for tapping the public purse. Provision is also made for payment by the Government of all these costs in the event the soldier or officer overseas is sued for damages, even if there is no criminal charge involved. This doesn't mean that with immunity you can speed your car through the Casbah, bowling over pedestrians like tenpins. The regulation limits assistance in civil suits to those which arise out of acts done in the performance of official duty and, quite nebulously, to suits which may have a significant impact upon international relations, or which involve a peculiar United States interest. What kinds of suits come under the "significant impact" or the "peculiar United States interest" clauses is apparently a matter for determination on a case-by-case basis. Quite clearly the driver on duty who negligently injures a resident of the receiving state or damages his property will be defended in a civil suit at Government expense.

Everything considered, the statute and the regulation seem to cover the whole area of cases in which anyone could reasonably expect the Government to assume the financial burden of a legal defense. The serviceman overseas need no longer feel completely alone when he runs afoul of local law and local authorities.



In every British cadet's life there is a Sergeant Major—a military perfectionist whose influence will be at work throughout the future officer's career

# The education, training and duty tours of The Young British Officer

**GENERAL SIR CHARLES F. KEIGHTLEY**

Since 1945 the Kermit Roosevelt Fund has fostered a better understanding and a closer relationship between the military forces of the United States and the United Kingdom by sponsoring the exchange of lectures by distinguished American and British general officers at the Royal Military College at Sandhurst and the United States Military Academy at West Point. This year's British lecturer at USMA was General Sir Charles F. Keightley, GCB, KBE, DSO. The American officer who lectured at Sandhurst was Lieutenant General James M. Gavin.

In his lecture at West Point General Keightley captured his audience with a clear and engaging description of the selection, education, training and duty

tours of the young British cadet and officer. We found that the lecture reads as well as it listened and are happy to present it to our readers.

The Kermit Roosevelt Fund was originated by Mrs. Kermit Roosevelt to commemorate the services of her husband, Major Kermit Roosevelt, who served in both the British and United States armies in both world wars. He died in Alaska on 5 June 1943, while on active service. In 1945 the 79th Congress established the Fund by Public Law 121. For several years it was supported financially by Mrs. Roosevelt. Later the two governments assisted it financially, and this year the Rockefeller Foundation presented the Fund with a six thousand dollar grant.



I HAVE taken as my subject the "Young British Officer" because, throughout the years which you serve in the United States Army, many of you will be running into this chap, and the more you hear about him and understand his characteristics, shortcomings and outlook generally, the more chance there is that you will get along with him.

I will try and describe to you something of his background and way of life so that you may have some idea of what to expect. I will also deal with one or two matters of more current interest as I go along.

There are certain inherent characteristics of the British people which you must know about before you try to know a British officer. I think these characteristics can be summarised as follows:

First, reticence, which is apt to make them appear aloof or even off-hand.

Second, fondness of tradition.

Third, they are resolute, which is apt to turn to stubbornness.

Fourth, they are experts at making the best of a bad job, perhaps because they have had a lot of practice.

You will not find these characteristics in all British officers but you well may do so, and an understanding of this inherent temperament will be a great help.

We British and Americans have one great strength and bond—a common language. It is an immense help in understanding each other, but it can be a pitfall. You may say something in English which means something quite different to a British officer, and he may do the same to you. It need not even be a different word; it may be the accent on a word, or a stop in a sentence.

#### Origins of the British officer

Now, first of all, who is this young man, why does he join the Army, and where does he come from?

The days of officers all coming from one stratum of society in England are gone for good. It is true that there are military families in England where fathers and sons have been soldiers for some generations. That, we believe, is a good thing. Otherwise, officers come from every walk of life. There is no restriction on whether the potential officer is the son of an officer or NCO

of the Army, Navy or Air Force, or whether he is the son of a big business man or local tradesman. They all get an equal chance; they must pass the exams under the same conditions. Sandhurst is a great leveller, and after a remarkably short time you could not tell which cadets had service backgrounds and which had not, or what type of schools they had come from.

The reasons a young man joins the British Army are usually very obscure, in fact he often hardly knows himself, except that he just feels that way. The main influence is the family influence. Where a boy's father has been in the Army, and mother is willing, the chances of a young lad joining the Army are good, otherwise they are bad. The type of lad who joins is, of course, the type who fancies an outdoor life, excitement, adventure, travelling and so on. Although later they all develop a feeling of loyalty and devotion to the cause, I don't believe that affects them actually on joining. Similarly, I don't think many of them join with the idea of becoming generals, though they may develop more ambition later.

Schools play an important part in the production of officers, because the

The products of the system described by General Keightley were the leaders of such great combat units as the Gloucestershire Battalion, shown here marching back to its bivouac after receiving the American Presidential Unit citation for its heroic stand against encircling Communists during the April 1951 battles in Korea





## SANDHURST —

British Public School system is founded a great deal on family and other traditions, and some schools, such as Wellington, do deal especially with boys who have opted early to go in for an army life. But nowadays, State schools are as numerous as Public schools. Lastly, they certainly don't join to become rich men.

### **Entrance requirements**

The boy usually makes his decision pretty late in school life, and he has to put his name down by the age of seventeen. A boy at school in the United Kingdom, who wants to become an officer in the Regular Army, takes an exam when he is about seventeen and a half, has a medical examination, and goes before a Regular Commissions Board. The Board consists of some six senior officers. The tests are made by having boys live together for three days. During this time they are given every sort of trial, such as organising parties of other examinees to do some task, answering snap ques-

tions, playing games and so on. They are practical and absolutely fair, but they have the one disadvantage that they cannot, in the nature of things, deal with a boy who develops late, and often the best officers develop their leadership qualities late. If he passes these exams and tests successfully, he goes to the Royal Military Academy, Sandhurst, at about the age of eighteen as an officer cadet. He now does not do any rank training in a unit beforehand.

As well as the "School" entries, about twenty percent of the vacancies at Sandhurst are allotted to promising young NCOs and men who are already in the Regular Army. These men are selected by their commanding officers and, provided they pass the Regular Commissions Board, they go to Sandhurst at a slightly higher age than the "School" entrants, with whom they then join up.

### **Royal Military Academy, Sandhurst**

There are two entries a year into

Sandhurst (in January and September), each of about 250 British officer cadets and, as the course lasts two years, there are about a thousand British cadets there at any one time. There are also about one hundred overseas cadets, from such places as Malaya, Ceylon, West Africa, Iraq and Libya.

The two-year course is made up of six periods of thirteen weeks each. During the first term, the "School" and "Army" entries have to be levelled up. Those from the Schools requiring more military and less academic teaching than those from the Army, and vice versa.

After the first term, the teaching is almost equally divided between military and academic subjects. Each cadet studies the same military subjects, but his academic studies vary according to the arm of the service which he is hoping to enter, and also according to his own wishes. The choices of subjects are: Pure & Applied Mathematics, Science, History, Economics and Languages. The split of actual hours work to various subjects may interest you. In the total two-year course, the Cadet does a thousand hours at military subjects and a thousand hours at academic subjects. At military subjects he does one-quarter of the whole time at tactics,



## where the young cadet becomes a potential officer

150 hours each of drill, logistics and military history. Those are the main subjects. Out of two years he has twenty-five weeks of leave, which I am sorry to hear is somewhat more than you get.

Sandhurst is organized into three colleges, and each college has four companies. These companies are named after famous battles of the past. Blenheim, Waterloo, Ypres, Somme, Alamein and Normandy are some of them. An officer cadet goes into one of these companies on arriving at Sandhurst and, except sometimes for disciplinary reasons, he is not normally moved out of that company during the two years he is there. The *esprit-de-corps* of Sandhurst is therefore based on the company.

The officers who command and control the companies are chosen from all corps and regiments in the Army. The cadets themselves provide a Senior Under Officer, Junior Under Officers and NCOs. We also have a Company Sergeant Major from the Brigade of Guards in each company, who is responsible for the general drill of the company.

### Life of the Cadets

Sandhurst cadets have a pretty tough time during the first two terms. Each

Cadet has to go through two major ordeals, the Junior Boxing and the Junior Steeplechase. In the boxing, whether he has ever boxed before or not, he has to fight three rounds against another new cadet of approximately his own size and weight, in front of most of the Academy, and in the Steeplechase he has to race three miles across country, often under the most inclement weather conditions, and being shouted at to go faster by the rest of his company practically all the way.

The cadets' time at Sandhurst is not all spent doing this sort of thing. They play every kind of game—rugby and association football, hockey, cricket, tennis and squash racquets. They can also, if they wish, ride horses, hunt, play polo and sail.

The result of all this is that a potential officer is turned out with the following characteristics:

First, he is personally smart and fully understands discipline, even if he does not always practise it.

Second, he has a good working knowledge of the ways of the Army.

Third, he is physically and mentally fit.

Fourth, he has quite a good academic training.

Fifth, he is short of military training. His knowledge of tactics, logistics or

any special technical arms training will be very superficial.

### Courses after Sandhurst

The young officer on leaving Sandhurst must improve his military and technical training sufficiently for him to be of value as an officer in the arm of the service which he has decided to join. The courses, very broadly, which he goes to are then these:

*Infantry officers*—four months at the School of Infantry, which is half weapons training and half tactics.

*Armoured Corps officers*—five months at the Royal Armoured Corps Training Center, where they study driving and maintenance, gunnery and troop leading.

*Royal Artillery*—four months at field artillery or AA, mainly spent at an artillery practice camp.

These are all important, but fairly lighthearted, courses where the young officers get a dangerous combination of a sudden relaxation from the restrictions of Sandhurst discipline, combined with a new-found excitement of new uniform, badges of rank and so on, but as yet no compensating responsibility to a regiment. I believe they are terrible courses for the instructors!

Next are the courses for Royal Engineers, Signals, Service Corps, Ord-



The Coldstream Guards parade in Malaya

nance Corps and Royal Electrical and Mechanical Engineers. These do courses which vary from six months, in the case of Royal Army Service Corps, to four years in the case of Engineers and REME.

Many of us feel this is altogether too long for young officers to spend before they join their units, but it is difficult to manage their technical training otherwise.

#### Scientific training

Then, lastly, there are those who are going in for scientific training.

After they leave Sandhurst, they go either to the Universities at Oxford and Cambridge, or to the Royal Military College of Science at Shrivenham; in either case they do another two years there, and they must pass certain degrees.

We are trying, in every way we can, to encourage young officers to go in for the scientific side, because many of us believe that there lies success or otherwise in future warfare. The trouble is that we have great difficulty in persuading young officers to do this. They feel it is not proper soldiering and it is certainly harder work and less fun.

Well there you have a picture of young officers who have completed be-

tween three and one-half and six and one-half years since they first put on uniform, ready to join their regiments.

Before the war, you were lured into the British Army with a glamour poster of blue seas and palm trees with the caption "Join the Army and See the world for nothing." Now the problem is to spend any time at home. We have now got eighty percent of the Regular Army out of England, and that is bad for recruiting and bad for the Army generally. We always found service abroad was good for a young officer, but it wanted to be mixed with home service, or officers and men made no impact on the country and recruiting especially suffered.

Service at home is popular for regiments who have been abroad for some time but, generally, young officers would rather join a regiment abroad because they see a bit of life and action before settling down to the rather humdrum life of a unit in England. Units in England have three main responsibilities.

First, to train National Servicemen.

Second, to help in the training of the Territorial Army each summer.

Third, to keep themselves fit.

In fact, most regiments in England are what are called training regiments, and very much the greater part of their

time is taken up in training National Servicemen to be fit enough to join regiments abroad. To do this, we have Infantry Depots, usually in the biggest towns in each county: Armoured Regiments have regiments stationed in the North of England; Gunners, Sappers, and Services similarly have Depots and Training Regiments spread throughout England. For a young officer, as you can imagine, this task, although absolutely essential, is inclined to be dull, because there is so much routine. It is also expensive because there is a great deal of social life open to regiments stationed near a big county city or near London.

The Guards Brigade has its own system of training, of turnover of regiments and really of everything. Their regiments are stationed in London, or nearby at Windsor or Pirbright while at home, and their duties include a great deal of ceremonial. They also do their turn abroad now, and units from the Guards Brigade are in Cyprus and Malaya. In spite of the fact that they spend a good bit of time in or near London, they do in fact turn out the most excellent regiments for any task they are given in peace or war.

So much for service in England.

#### Overseas service

Germany is the next nearest to England, and service there is, I expect, much as it is with the United States Army. It is fairly popular, as the training facilities are excellent, living conditions are good, and the young officer has an attractive, varied life there.

The Middle East provides the widest bracket of different types of stations in the Army today. The majority of the Middle East forces are now in Cyprus, and that island alone provides a wide variety of tasks. The young officer does a certain amount of work in the mountains operating against the terrorist mountain gangs. That is exciting work, good for initiative, good for exercising powers of leadership and tactical ability generally. But a great deal of the work is almost police work. Men must often be armed with a shield and baton when they go in in support of the police. The Cypriots have got every trick of an expert terrorist, and the work is difficult and dangerous. It is a necessary task, but not one a young officer likes much.

Libya is the next country where we have many troops, and there life is much more pleasant. Mainly, units are

stationed in single-unit stations and must make their own life both at work, at play and socially. You have a large strategic airfield there called Wheeler Field, and the young officers do meet American Air Force officers socially.

The barracks are old Italian barracks but well built. Married quarters are usually good. Training areas are excellent, and sports grounds are good. Training is usually done in the vicinity of the barracks for nine months of the year, and then for three months units go out in the desert and cooperate with other units and arms of the service. Everyone enjoys these weeks when the whole regiment goes out and lives hard for long stretches on end. There the young officer concentrates on the training of his unit in whatever arm of the service he is. He has no obligations whatever to the country in which he is stationed, but our troops do cooperate with the Libyan Army manoeuvres. Sport is good and especially swimming as all the barracks are stationed along the coast. Shooting, sailing and fishing are excellent, and the young officer leads a very good life there.

In the Middle East we also have certain places where British officers can serve with local forces, and often lead a pretty exciting life. A young officer can, for instance, volunteer to serve with the Aden Protectorate Levies, or the Somaliland Scouts. In the Aden Levies, the men are pretty wild types, but they spend at least two-thirds of their time on active service, and a young officer certainly has an adventurous and eventful time. They learn Arabic, wear a shaman or Arab headdress, and lead a kind of Beau Geste life.

#### Tours in the Far East

Here, the main activity is liquidating the bandits in Malaya. This is a proper soldier's job and young officers like it. They live in the jungle for many days on end just with their platoons of twenty men and one young officer will be responsible for all the tactical and administrative work of his men for the whole operation. Good training. The only thing about Malaya is there is not much of an opportunity for sport, and home life is pretty upset.

Hong Kong and Singapore have garrisons where the units concentrate on training with very seldom an internal security problem to sort out. Sport in this part of the world other than in

Malaya is good, sailing, golf, cricket and so on are all very easy to come by.

In giving you these various places in the world where officers serve, I think it would be of value if I gave you some general background as to why these units are where they are. Broadly, they are in three categories.

#### Missions of the overseas garrisons

Some of them are located where we have had British garrisons for many years, in such places as Malta, Gibraltar or the West Indies. These present few problems.

Some of them are engaged in internal security work, such as against the Communists in Malaya or the terrorists in Cyprus.

And others are stationed in foreign countries as a result of treaties with the governments concerned.

These categories produce their own particular problems from time to time, and I think it might be appropriate if I gave you some of these factors as seen from the British point of view, because the difficulties of so-called imperialism and colonialism have caused many misunderstandings between our two countries, and you, in your time in the United States Army, will certainly be affected by the issues at some time in your service.

I will not give you a historical survey of the problem because it is pretty involved, and you know it all I am sure, but the situation as it is today is pretty clear cut.

The British objective with all the territories under its control is to lead them all on to democratic free government according to the will of their people. This has, incidentally, been the objective since the beginning of the century, and has gone progressively forward. India is the largest example, Ghana in West Africa, the latest.

The trouble is that in certain countries now, and especially in the Middle and Far East, the Russians are moving in and we believe that in many cases it is a straight issue of keeping friends and allies with the West until they are strong enough to be entirely self dependent, or going straight under Communist domination.

There are several countries in this dilemma at present in which there are both British and American troops or interests.

#### The impact of Soviet pressures

Libya is an instance. Both England

and America made treaties with her at the end of the 1939-45 war, by which England was to have Army units there, and America a strategic air base at Wheeler Field. We each pay Libya a considerable amount of money each year, and have certain other responsibilities and obligations as well. Within the last year, the Russians have started to move in, and the hammer and sickle now flies on one of the best and highest buildings in Tripoli, and is clearly visible from Wheeler Field. There is considerable pressure now to move American and British forces out of Libya, and it is being done in the cause of pseudo-nationalism. That is the Russian technique.

Libya is a pretty robust little country, and knows well she is far better off with Western friends and Allies, who do not affect her sovereignty or way of life one little bit, than by going in with the Russians who would produce a very different result—as they have in Egypt. But, unfortunately, there are other countries not so robust, such as Jordan, who through the same technique will, I am afraid, find themselves under Russian domination in the very near future.

I have put these thoughts to you for two reasons.

First, to remind you that Russian influence in the Middle East is a real and dangerous threat. Many young British officers are there now and many of you may well find yourselves there during your service.

Second, on this issue, I would stress that the British objective with countries where services are stationed, is not now, if it ever was, what is apt to be called colonialism. It is, in fact, to endeavour to help these countries run themselves, devoid of any outside influences, but especially from Communism.

#### U. S. and British objectives

When, therefore, in the years to come you are influencing these affairs as between America and England, have a good look at the background and factors of the case, on your own, before you judge. I believe that, now, a real Anglo-American understanding is more vital than ever, not only because we both have troops in such countries as Libya and Iraq, but because, fundamentally, whether we are dealing with Malaya, Cyprus, Formosa or the Philippines, our objectives are the same and

differences of opinion are whipped up only by our enemies.

If you should ever find an international issue where America and Great Britain are on opposing sides, and Russia sides with one of them, I believe you want to view with the greatest suspicion the case of the side which Russia is on. The whole issue has probably been engineered by her, and the side she takes will, in the end, only benefit Communism.

In giving you a run through the various places in the world where young officers find themselves, I have covered the main tasks which units are involved in but you will have gathered what a wide bracket there is:

IN ENGLAND training National Servicemen to be posted abroad, helping Territorial units.

IN GERMANY straight training, prepared for a Continental war.

MIDDLE EAST garrisons of Gibraltar, Malta and Libya, involving desert and other training. Cyprus—involved in terrorist chasing and police work.

FAR EAST dealing with bandits in Malaya or training in Hong Kong.

So, as you see, a young officer can be involved in any one of many different tasks.

#### Sport, recreation and hobbies

Before the war, young officers were expected to take an immense amount of exercise. The French used to say "The British believe the mind can only work when the body is physically exhausted." There was a bit of truth in it too; I am sure we overdid it. If you were a subaltern in a cavalry regiment as I was, most of the time off parade was spent playing polo, or schooling ponies or hunting or schooling one's hunters, according to the season. Conversation in the mess was apt to revolve very much round the current sport. Similarly, in infantry battalions cricket and golf might hold the court. It is not so bad these days but, like schools, officers' messes do seem to run crazes in a remarkable way. Cyprus went in for underwater fishing last year, and the conversation in nearly every mess was almost incomprehensible to anyone who hadn't an aqua lung.

I believe that when you visit a British officers' mess you may find this angle the most inexplicable and the most exasperating of all. The young British officer is somewhat surprised when he finds anyone not doing what he is doing, and he is bad at making

an effort to understand another person's point of view, or interests. This is very much so even within the British Army itself, but would be much more evident with an American officer visiting a regiment. So you must make allowances for this.

Remember also what I mentioned of the same language. When a British officer speaks to an officer from a European country, whom he can hardly understand at all, he fully expects him to have very different and even queer ideas and characteristics, and he is surprised and rather pleased when he finds he is probably quite normal. But when he meets an American officer he finds him talking the same language and he cannot understand why this entirely British looking and speaking officer does not understand exactly what is the trouble with the M.C.C. cricket team, or what are the prospects of the Soccer Cup Final. I don't want all this to make you nervous when you go to a British mess: just the opposite, because by realising this trait, you will learn to bear with it and anyway in the end British and American officers always get along fine socially, but you mustn't expect them to know all the rules of baseball without some education.

#### Nonpolitical leanings

I have dealt with his interests and conversation in the mess on sports, but naturally when you meet them you may well discuss either world affairs or some military job in hand, be it training or operations. Here I would say that the young British officer is bad at expressing himself. He is inclined to take the overall political or military direction without question, and you will therefore find him inclined to stick out for the current British policy, and be somewhat intolerant if anyone questions it. This attitude has certain advantages but you might find it a little upsetting, if you should raise some subject for discussion in a mess especially to get views on it.

I believe it is a weakness that British officers are almost self-conscious of airing their views on wide military or political problems. I remember noting it very markedly in 1937 when I did an attachment as a young officer to the German Army. I was fresh from my regiment in England with the old saying "Don't talk shop in mess" and I found myself living for a couple of months where apparently no one was

allowed to discuss anything but military and political matters. It is also apt to give the impression that he is not keen on soldiering and military matters, whereas he is, in fact desperately keen. It is fashionable to say "Oh, we are not going out on another exercise next week, surely to goodness." But in fact he will be very disappointed if it is cancelled. I believe that this characteristic of a British officer is very puzzling and misleading to other nations. He affects "blasé-ness and cynicism, which in fact he doesn't feel at all. It is a definite shortcoming.

#### Combat leadership

That has, I hope, given you some idea of the British officer in peacetime. I will now give you something about him as a leader in war. Here I could make some comparisons with American officers because I have seen them both fighting side by side on many occasions and under conditions varying from full-scale attacks in Africa and Italy in the 1940's to the more open battles of Korea. But I would summarise by saying that they are both first-class with their own soldiers.

I believe one of the most difficult things for senior officers to assess is the leadership quality of young officers. The soldier in your units does it of course immediately and absolutely accurately. However, we have certain qualities which we either endeavour to instil into, or expect to find in, young officers.

First, knowledge of his job.

Second, courage.

Third, personality to command men.

Fourth, utter integrity.

A combination of these then, we believe makes the leader in war. Now if I had been asked to bring over to you, with me, the ideal type of British young officer, I suppose he would probably be winner of the Sword of Honour at Sandhurst. But, in fact, the number of men who won the Sword of Honour at Sandhurst, and have become generals, is remarkably few. And certainly the number of young men who were renegades at Sandhurst but became generals, is high. You get the most unexpected chap who has an indefinable something which, whatever he may look like, makes him a natural leader of men. I don't believe you can ever really describe that quality, because it is different in everyone.

In Italy, at the second battle of

Cassino, I had a very impressive example of this. I was commanding a division and we had one most difficult task which was to hold a place called the Castle Rock, which was completely overlooked by the Germans, and the approaches were covered by German fire. We could only relieve it at night, which we did once every two days. It was held by one platoon, and was a vital OP. One night my senior staff officer came in to me saying there had been a mutiny in a Wessex Battalion, as one of their platoons refused to take over the Castle Rock position and a platoon from another regiment had had to be sent up. I went straight off to see the trouble; it so often looks quite different on the ground to the report, and there I found a platoon of very dejected looking men with a very sorry looking platoon sergeant. I asked for the platoon officer and I was told he was on leave. I then went and talked to the men. Talking quietly to them it was clear what the trouble was. They none of them had any confidence in the platoon sergeant. I found the platoon commander was due back in forty-eight hours so I sent the platoon off with orders to do the job directly the platoon officer returned.

#### **The leader was the platoon**

Three days later I asked how they had got on, and I was told that not only had they done the job without any fuss, but had also carried out a very good little raid all on the initiative of the platoon commander while they were up there. I was so surprised at this that I sent for this platoon commander. I was interested to speculate what this officer, who was clearly a most outstanding leader, would look like. I somehow expected a great tall smart strapping chap. To my astonishment the officer who came in was rather small, very scruffy, and hardly knew how to salute properly, aged about twenty. I talked to him for sometime until I found out his especial leadership qualities. They were two: a very fine natural tactical sense, and a real knowledge of, and affection for, every man in his platoon. He knew everything about his men, all their troubles, problems, views and so on. He knew his sergeant was no good, and had tried to get rid of him, but his company commander had refused to do so. He was, incidentally, killed in a very gallant attack some months later.

That incident has always been a les-

son to me that you cannot tell the real war leader anywhere except in battle. I think Napoleon was a pretty poisonous young officer, Wellington was certainly troublesome, and I don't expect General Grant was one of the smartest young officers of his time. Good leaders certainly run to all types. I think perhaps, relating that to our subject, the moral is don't judge your British counterpart so hastily or harshly on American standards, because he will probably have qualities which put him right with a British soldier, although not in any way apparent to an American officer.

I would like to make one other important point with you. In the British Army we have good, and some not so good, officers. All armies are like that. If it is your misfortune to run up against one of our not so good officers, and he does something inefficiently for you, don't judge the whole British Army by that one chap. I know how

very difficult that is to do, even in the British Army. If a gunner regiment ever puts one shell into our own infantry, it will take months and months for that battalion to have complete confidence in any artillery support by any gunner regiment.

Well I hope you here will all become very senior officers, and when you do I would ask that you, in your turn, do all in your power to help Anglo-American understanding and friendship on which the whole peace and security of the Free World depends. May I conclude by saying how immensely I have been impressed over the last two days with the organization, training and bearing of everything at West Point, and all those who study here. All instructors and many cadets have been inconvenienced by my wife and myself going round, and on behalf of my "drag" and myself I would like you to know how very much indeed we have enjoyed it.

On guard behind a barricade of wire in Cyprus



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Chief of Chaplains



MAJ. GEN. O. C. TROXEL  
Chief, Special Warfare



"Ladies and gentlemen, this is it." In a meeting hall at London University Colonel Dupuy, flanked by British and American officers of SHAEF's public relations division, prepared the press for the impending announcement of the invasion of Europe. A little later in another room in the same building, Colonel Dupuy broadcast the announcement to a waiting world.

# MORNING TO REMEMBER

**COLONEL R. ERNEST DUPUY**

ON 6 June 1944 an American voice broke into the air over the U. S. Army Signal Corps transmitting station, FAX, in London, at exactly 0932 British double summer time, or 0332 Eastern Daylight Saving Time in the United States:

"Under the command of General Eisenhower, Allied naval forces, supported by strong air forces, began landing Allied armies this morning on the northern coast of France."

In all probability it was the most widely distributed broadcast the world has known, for this was wartime and both the Allies and the Axis nations

were continuously monitoring the air. It was heard in Moscow, Berlin, Tokyo and Rome.

In the United States and Canada radio engineers, warned a moment before that an important announcement was coming, had thrown switches linking FAX with all network transmitters and broadcasting stations from the Gulf of Mexico to the Arctic Circle, from the Atlantic to the Pacific. Similarly, every transmitter of the British Broadcasting Corporation had completed a hookup beamed throughout the British Commonwealth and to the countries occupied by the enemy.

The voice was mine—a fact in itself of absolutely no importance. This was a military message from General Eisenhower to a waiting world. It was being transmitted by one of his soldiers, but why this particular soldier went on the air at that time is a story with a most interesting background.

AS General Eisenhower's public relations officer, my job was to insure that the people most concerned—those of the United States and the British Commonwealth—should get all news of the Allied Expeditionary Force. It was their expedition and they were entitled to know. I would have traded it all for a field artillery command, but by the fortunes of war this was my chore.

It had been decided by the usual General Staff conference procedure

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**Colonel R. Ernest Dupuy**, Artillery, retired, a frequent contributor, as PRO of SHAEF supervised press, radio and pictorial coverage of the invasion of Western Europe.

At a service club somewhere in England, American and British soldiers and airmen heard Colonel Dupuy's voice announce the invasion



## The man who made the D-day broadcast of 6 June 1944 tells how the world got the news

that the simplest method of giving SHAEF's initial communiqué to the world would be by one voice broadcast. It was simple and it was fair. It relieved the war correspondents of the urge of trying to be first on the wire with the Big Flash, and it eliminated the filing of thousands of extra words upon a strained radio and cable network.

We had put this up to the correspondents on an "if and when" basis and the wire services and individual newspaper representatives had accepted it. But, to my surprise, the broadcasters for National, Columbia, Mutual and BBC screamed in holy horror. Who, they demanded, would broadcast the announcement?

BBC flatly announced it must be a British voice; the British public had for years been warned to trust no radioed war news unless it came from some well-known BBC announcer. As flatly and as loudly the U. S. network representatives demanded that the voice be American. I replied that I didn't

give a damn who made it, but this was a military operation—the voice of SHAEF—and it would be a soldier's voice. Were it possible to have both American and British voices on two simultaneous broadcasts, then let's have two soldier voices. But at this the radio engineers shook their heads sadly; that couldn't be done.

The professional broadcasters were shooting for something which meant much to them, as organizations and as individuals: the honor of being able to claim in later years that so-and-so of such-and-such a network was "the man who gave the D-day news to the world." I couldn't blame them; they were businessmen.

**B**UT I was a soldier. I didn't have the slightest intention of having the news of the opening of the second front go to the world by courtesy either of the BBC or of Blotz's Snow Flakes. I told the conference the matter was settled: I was the PR chief; I'd give the flash.

Any questions? There were, indeed.

"Who," craftily queried the BBC representative, "is going to listen to you, Colonel?"

That hit me, so I hit back:

"Listen, brother, this will go out on the Signal Corps 40-kw transmitter. Everyone is monitoring that, every minute of the time. Any ass who doesn't pick it up will soon be looking for a job. Do you think the BBC will risk being scooped on this?"

That settled the matter—or at least I thought it did. But on Ike's staff for psychological warfare was William S. Paley of Columbia Broadcasting System, and Bill began a little extracurricular work in behalf of Columbia. He came to me in person to offer advice. This thing was important. It was equally important that it be given out by a professional, someone who, as Bill said, could put "just the right slant of repressed emotion" into the task.

It was all very polite and very indirect. But there was no doubt in my

mind that so far as Bill was concerned, only a CBS announcer could fill the bill. I thanked him and went my way. But I became nettled by the fact that Paley's pitch was picked up by several other General Staff people who kept urging me, right up to D-day morning, to turn the whole thing over to a professional broadcaster.

Through chance another Columbia man, my friend, the late Paul White, happened to be on the other end of the circuit that morning, and changed what I had hoped to be anonymity to identification.

To visualize the happenings of D-day morning let's reach back to the mission of SHAEF's public relations division and to the preceding six months of hectic preparation.

**T**HE key people in PRD, as in other General Staff divisions, were thoroughly familiar with the details of that top secret plan: Bigot, as we called this super-hush-hush classification for Operation Overlord. Its preamble is still burned into my memory:

"The objective of Operation Overlord is to effect a lodgment on the northern coast of France."

All my Press Relations Division had to do was to see that the full story was told as soon as the shroud of secrecy was ripped away. In theory it was simple. It differed little from setting up and handling a press box for a big game. I'd done that for three seasons of Army sports at West Point.

You must have sufficient space to accommodate all correspondents legitimately entitled to cover the game. You must have a communications setup enabling ready and rapid transmission of their reports. You must keep these people as warm and comfortable and as well fed as possible. You must provide enough background material on the players, the teams, and their schools. And when the ball is in play you must identify the plays, the ball carriers and the tacklers.

In war—and particularly in a global war where your clients are the free presses of the entire United States and the British Commonwealth—the job becomes harder. You must censor the output of the correspondents. And, as Clausewitz wrote, "although the knowledge in war is very simple, . . . to put it into practice is not . . . very easy." We had done all the preparatory things. Now the ball would go into play.

Here was the PR starting line-up. SHAEF at that time had 461 accredited men and women war correspondents representing newspapers, broadcasting and pictorial media. TV was not yet with us. There were 180 American, 42 Canadian, 188 United Kingdom, 27 other British Commonwealth reporters, and 24 additional Allied press representatives.

On that morning twenty-three of them were actually in the assault on the American side, seventeen with the British, eight with the Canadians. Five more were with the U. S. 82d and 101st Airborne Divisions, five with the British 6th Airborne. With each contingent went a skeleton PR detachment with radio equipment. With the Rangers who had that nasty cliff-scaling job was one correspondent—a soldier representing *Stars and Stripes*. Still other correspondents were sprinkled among the naval vessels, and in planes flying over the scene.

Each of these assault correspondents had been secretly called up on 1 June and whisked to mobilization points, to be swallowed up in the units they would accompany. Be it noted parenthetically that by nightfall of D-day two correspondents and a PR officer had been killed; two correspondents and two enlisted men of PR wounded, and two other PR officers had had hand-to-hand clashes with the enemy, killing and wounding some and capturing others.

**A**S for the great majority of correspondents, except for four picked by lot to be with Ike at his forward headquarters at Portsmouth, all were now gathered at our press headquarters at London University, where a large hall had been transformed after midnight into a press room, with enough desks, typewriters and copy paper for their needs. We had called them up that morning for a press conference at 0800.

It was a one-way affair, as the correspondents found on arrival, for MPs were at every door. Once in, they stayed put. By the time I called them to order you could cut the tension with a knife. All knew there could be but one reason for the procedure that had been followed.

"Ladies and gentlemen, this is it! You will be provided with the text of the initial communiqué announcing the landing and also with the Order of the Day published by General Eisen-

hower this morning to his troops. . . ."

They could, I added, write what they pleased. A corps of censors was on hand to supervise and hold their copy until the flash was announced. Background material was issued that included the revelation for the first time that General Montgomery would command the ground forces.

Typewriters began to click, while a delegation of brass explained and answered questions, including my two senior briefing officers—a British colonel and a captain of the Royal Navy—together with Captain (now Admiral) Leland P. Lovette, USN, and British Major General Jock Whitely, Assistant G3 of SHAEF.

**A**s the conference room hummed I slipped out to my own office to wait. At Portsmouth with Ike was Major General Harold R. Bull, his G3, who would call me as soon as Montgomery got on his command ship offshore announced that troops had gained a toe-hold on the beaches.

Outside, London went about its usual morning business in shining sunlight, all unwitting. For the first time in three days I had time to think—to sweat it out.

Could it be that something the Public Relations Division of SHAEF had done—or left undone—might contribute to the failure of the mightiest armada the world had ever seen? Already the enemy radio was announcing some sort of assault, but nothing definite.

Men of my little press task force were going ashore in the assault waves. Others had already hit the silk with the airborne troops dropping far inland. Still others were with the naval force and in planes flying over the beaches. If any of them died—and I knew some would—the responsibility was mine. I had put them there.

But the overlying responsibility was far greater. The success of the landing depended on surprise. Of course the enemy knew that some day an invasion was coming and he had been preparing for it. The British Isles were almost sinking under the weight of troops and matériel gathering for months. So the enemy was like the man waiting for the other shoe to drop. He didn't know when or where.

Or did he?

Had some inkling of Overlord been divulged? Were these American and British soldiers going into a trap, to meet death and disaster?

All the News  
That's Fit to Print

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THREE CENTS NEW YORK CITY

## ALLIED ARMIES LAND IN FRANCE IN THE HAVRE-CHERBOURG AREA; GREAT INVASION IS UNDER WAY

ROOSEVELT SPEAKS *Conferees Accept  
Cabaret Tax Cut*

MILITARY

ALLIES PASS ROME, CROSS  
Tiber as Five Quits



EISENHOWER ACTS

U.S., British, Canadian  
Troops Backed by  
Sea, Air Forces

MONTGOMERY LEADS

Nazis Say Their Shock  
Defenses Are Rusting Out

How New York City readers  
got the news in the *Times*

CENSORSHIP in the field was a SHAPE public relations responsibility, but censorship in the United Kingdom was in British hands. Not only is censorship a chancy thing, but this British censorship was on an honor basis. If a correspondent asserted his dispatch had been checked, his word was taken. And the cable tapes, transforming the written word into gibberish which can be interpreted only by experts, were never censored.

We had had one nasty jolt as a result of this only three days previously. A young woman, employed as a tape-cutting clerk by the London bureau of the Associated Press, had "practiced" cutting an announcement of the coming assault. Her strip had been fed into the cable machine in the midst of a censor-cleared news story, to bring several hours of frenzy in the United States before the flash was killed.

Suppose one of our correspondents had been as loose-mouthed as that Army Air Forces officer who, at a cocktail party some weeks before, had all but revealed the date of the big show? Were there any clack-tongues in our contingent?

It seemed to me I had done everything humanly possible to insure secrecy, even to a step which might well have brought me up in Bow Street police court on a charge of mass kidnapping. For only the afternoon before, when we were knitting up all the mechanism for breaking the news, after Ike had made his decision to attack despite the weather, I'd realized that in addi-

tion to our own people in uniform our clerical staff of some one hundred British men and women civilians must by that time know the day and hour of the assault. How many of them—unwittingly—might wag their tongues at home or in pubs that night?

I solved the problem by simply locking up all hands in our headquarters overnight, with MPs at all exits. These people weren't happy about it—they couldn't even telephone home—but London University had comfortable air-raid shelters, bunks and canteens, so they wouldn't suffer. And to the credit of those stout Londoners, it might be added that I never heard a word of recrimination.

ALL this mental churning was, of course, subconscious. I kept my pipe going. I chatted with WAC Lieutenant Virginia Kincaid, my amiable and efficient secretary, and with my old friend, Colonel Francis V. Fitzgerald of 12th Army Group; I'd asked him in as supernumerary just to make sure I had a backstopper.

Then the scrambler phone connecting us with Monty's headquarters rang. Things seemed to be going well, announced his PR officer. I sent a message down to the press room to warn Brigadier W. G. Scales-Turner, my British second in command, to expect action soon.

Another phone tinkled—the direct scrambler to Ike's Portsmouth command post. Kincaid answered and nodded as she handed the receiver to

me. Brigadier General Arthur S. Nevin, Pinky Bull's executive, was on the wire. I glanced at my watch as I answered the call. It was 0915.

"Pinkie says OK, Ernie."

I drifted down into the bowels of London University to our radio room, locked myself in the booth and called—the circuit was open—simply stating that in ten minutes an important announcement would be made, for all networks, independent stations and press. A voice acknowledged.

"This is Paul White in New York.  
Who is this?"

"This is Dupuy."

"Thank God it's you, Ernie! All  
OK."

It was 0922. I sat in silence as the big sweep second-hand on the clock in front of me went around and around. It seemed time never would pass, but it did. And on the button I began reading the communiqué.

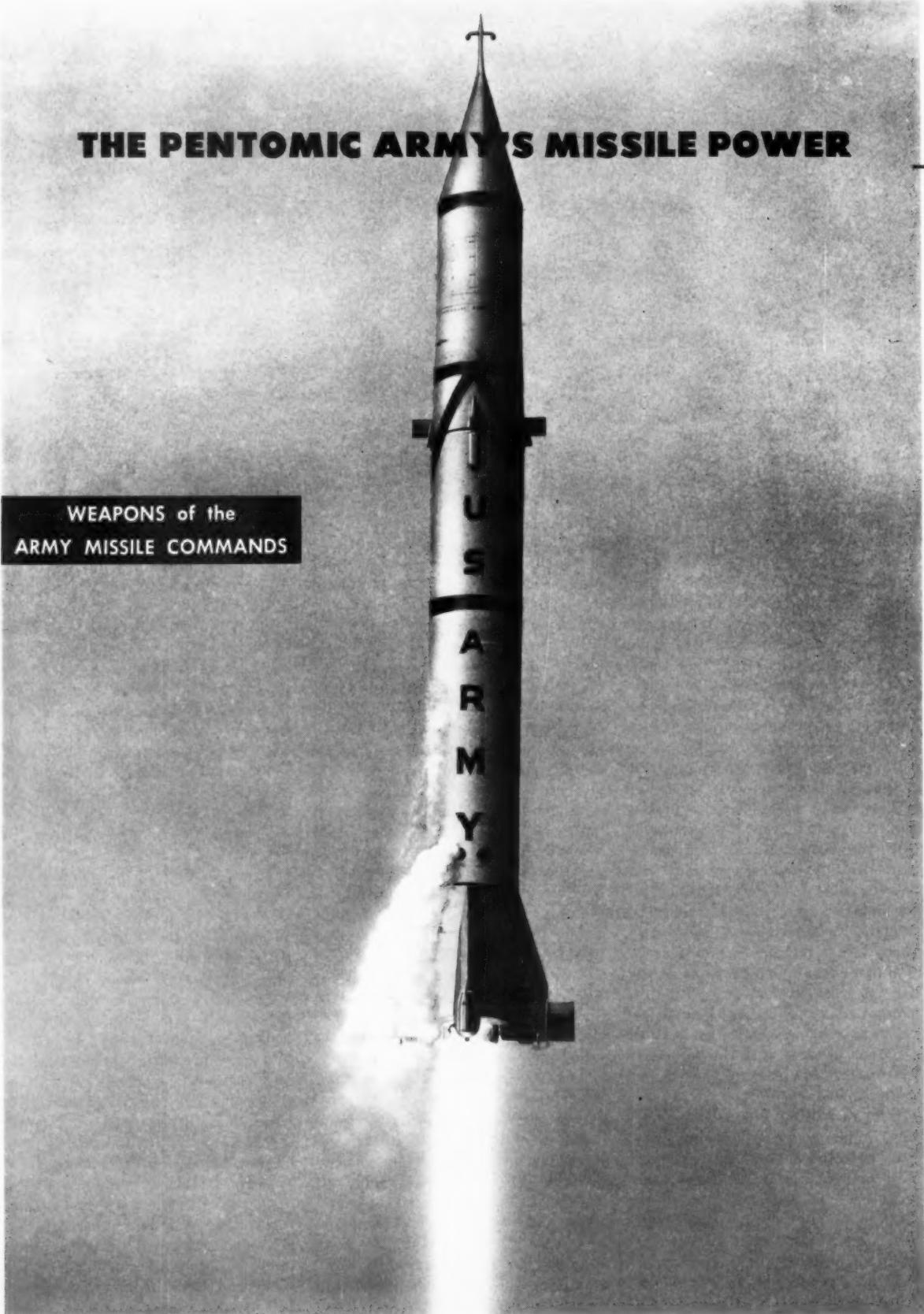
As I talked, one of my officers, waiting outside the booth, at my nod walked back to the press room upstairs. We had timed all this beforehand. So, as I completed my message my messenger reached Turner. His waving hand released the tension. Through the flung-open doors raced the tide of correspondents in a bedlam.

D-day had been made official—the biggest story in the world had broken.

That seems a long time ago. I'm still glad that the American people didn't have to depend on Blotz's Snow Flakes to inform them that Eisenhower had invaded France.

# THE PENTOMIC ARMY'S MISSILE POWER

WEAPONS of the  
ARMY MISSILE COMMANDS



**Army surface-to-surface ballistic missiles and rockets will exert a tremendous influence on the tactics of the atomic battlefield. To understand them we must have a working knowledge of their characteristics**

**CAPTAIN PATRICK W. POWERS**

THE ballistic missile is the most effective weapons system ever developed. It can create selected levels of destruction; defense against it is problematical. It can cover an army front, support deep penetrations and airheads, or be air-landed for close support.

These characteristics of both guided and unguided ballistic missiles will be fully utilized in the new Army Missile Commands being formed to reinforce Penticom divisions deployed on a global basis. General Taylor has said that these Army Missile Commands "will enhance [the Army's] combat readiness and hence its deterrent capability." Six of these commands are planned for activation by June 1958, employing the Honest John, Corporal, and Redstone missiles.

Today, the Army leads in the surface-to-surface ballistic missile field with a thousand firings since the start of our rocket and guided missile development in World War II. A large number of these firings have been by operational missile systems in the hands of troop units deployed around the world. Experienced teams of scientists and engineers coupled with vast industrial and government facilities have produced these first generations of ballistic missiles with improved versions promised for the future. My purpose in this article is to outline the basic principles of ballistic missiles and to cover the operational characteristics of those missiles now organic to Army Missile Commands. In addition, a few of the ballistic missiles under development will be discussed.

**Missiles and organization**

The Army's surface-to-surface missile requirements include both medium- and long-range missiles. Medium-range missiles are needed to supplement or extend the range and fire power of artillery cannon, to provide close or interdictory fire support for

ground combat forces, and to compensate for the expanding dimensions of the battle area. Long-range missiles capable of supporting Army operations from widely dispersed, deep positions in the rear will be used to deliver accurate fire on distant targets which can affect the execution of the Army's combat mission.

Three types of Army Missile Commands have been organized to incorporate these requirements. All of these units are essentially self-contained task forces which include elements necessary for local security, logistical support, and communications. They have infantry and armored battalions for security, sky cavalry units for target location, and engineer, signal, and support units for proper back-up. A prototype U. S. Army Missile Command is the Southern European Task Force supporting NATO divisions in Italy.

The air-transportable U. S. Army Missile Command is built around the Honest John rocket battalion. The Honest John rocket provides a means of carrying larger atomic or non-atomic warheads to ranges equal to the longest-range conventional artillery, yet with lighter and more mobile equipment. It is a rugged, simple, all-weather weapon that approaches the accuracy of standard artillery weapons and uses a shoot-and-scoot technique.

The medium Army Missile Command is organized with both Corporal and Honest John missiles and is manned by some 5,000 to 6,000 troops. The Corporal missile is the only operational surface-to-surface ballistic guided missile in the free world today; it is already deployed overseas in Germany and Italy. The Corporal provides the combat commander with an all-weather, day-or-night capability of delivering atomic or non-atomic fires at ranges much greater than that of Honest John.

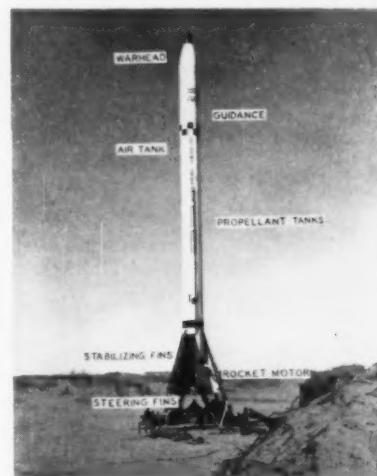
The heavy Army Missile Command

has the Redstone missile. The Redstone is a highly accurate, medium-range guided missile—the largest of all present Army missiles. The 217th Field Artillery Missile Battalion has already been organized to fire the Redstone. This battalion participated in Exercise King Cole.

All missile battalions of the U. S. Army Missile Commands are based upon the single fire unit conception. This unit is made up of a two-battery battalion with a headquarters and headquarters battery and firing battery. The battalion rather than the battery is the unit. It has all the administrative and logistical functions normally prescribed for artillery batteries. Thus, the smallest fire unit capable of independent operation, preparation of firing data, and conduct of fire is the battalion. This type of battalion will probably see common usage for all future guided-missile units.

**Rocket principles**

The Corporal and the Redstone missiles are known as liquid-propellant rockets. This means that their rocket engines burn liquid fuels and oxidiz-



Components of the Corporal missile

ers: aniline and nitric acid for the Corporal, alcohol and liquid oxygen for the Redstone. These high-energy chemicals burn violently and release energy in the form of hot, high-pressure gases. If these gases are ducted through a nozzle, they develop an action force which has as its equal an opposite reaction: the propelling force called thrust.

Two different systems are used to

# WEAPONS OF THE ARMY MISSILE COMMAND



**HONEST JOHN**



**CORPORAL**



**REDSTONE**



**LITTLE JOHN**



**SERGEANT**

**ROCKET/MISSILE**

**Type**

**Organic to**

**Warhead Capability**

**Targets**

**Approximate Measurements**

Free rocket (no guidance after launch)

Light and medium Missile Command

Atomic

Personnel and equipment

Length: 27 ft.  
Diameter: 30 in.  
Weight: 6,000 lbs.

Guided missile (liquid propellants)

Medium Missile Command

Atomic

Personnel and equipment

Length: 45 ft.  
Diameter: 30 in.  
Weight: 11,000 lbs.

Guided missile (liquid propellants)

Heavy Missile Command

Atomic

Personnel and equipment

Length: 65 ft.  
Diameter: 60 in.

Free rocket (no guidance after launch)

Light and medium Missile Command

Not available

Personnel and equipment

Length: 12 ft.

Guided missile

Medium Missile Command

Not available

Personnel and equipment

Not available

force the propellants into the combustion chamber of the rocket engine. In a rocket such as the Corporal, high-pressure air is used; in the heavier Redstone, a pump-feed system does the job.

A definite advantage of the liquid-propellant rockets is that the flow of liquids can be stopped or shut off accurately. This action terminates the thrust or powered portion of the trajectory and determines the rough range of the missile. Since the shut-off point never occurs at the exact point for the desired range, a guidance system will have to give a finer range correction maneuver during the descending leg of the trajectory.

The storage and handling of the liquid propellants present problems in the field. These high-energy liquids are either toxic, like nitric acid, or are difficult to store, like liquid oxygen which must be kept at about minus 200 degrees Fahrenheit. The latter propellant can be manufactured in the field by engineer liquid-oxygen generating plants that produce from five to fifty tons per day. Of course, the soldier fueling crews must be properly outfitted in special protective clothing when handling these dangerous chemicals.

The principles of operation of the solid-propellant rocket, such as the Honest John, are the same as the liquid type except that the propellant is a solid material. The first article of this series discussed this type of rocket in detail.

#### **The ballistic trajectory**

A ballistic trajectory is a path followed by a missile in the vertical plane

in which the largest force is that due to gravity. This trajectory is determined by specifying the position and velocity of the missile at shut-off or burnout of the rocket engine. Thus, by causing the missile to pass through a predetermined point in space with a precalculated velocity, it is possible to hit a target whose position has been located initially by Universal Transverse Mercator coordinates. Because of rocket-engine variations, winds, and other non-standard atmospheric conditions, errors occur in both position and velocity. Corrections must then be made by a guidance system to allow the missile to hit the target.

Some of the more important characteristics of a missile on a ballistic trajectory are:

- (1) High velocities, in the order of 1,500 to 10,000 mph;
- (2) Predictable behavior and well-known techniques;
- (3) Efficient use of propulsion: a large part of the trajectory being outside the atmosphere;
- (4) Use of forces due to the propulsion of the rocket engine, gravity, and aerodynamics.

The ballistic path of any missile may be classified as unguided or guided. The study of the path of unguided missiles is familiarly known as exterior ballistics. The guided missile paths should not be considered as independent of the effects of exterior ballistics but rather as a modification of ballistic effects through the use of a guidance system.

#### **Guidance systems**

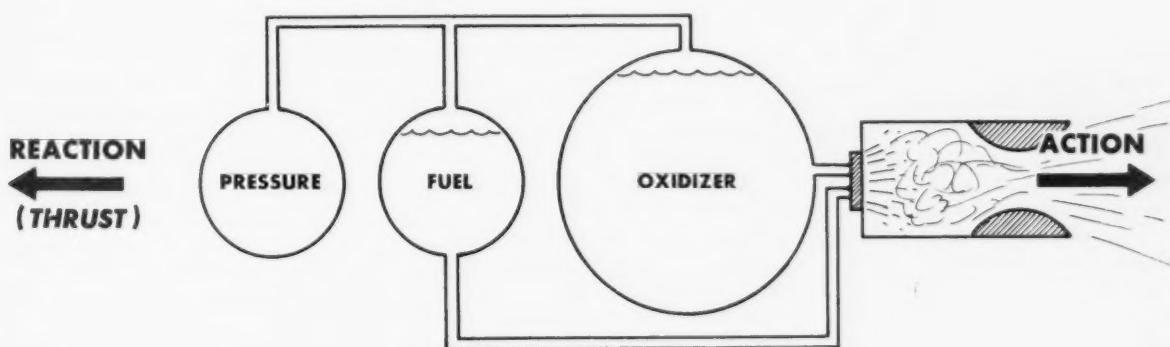
The Corporal and Redstone missiles

systems differ from the Honest John in that they incorporate a form of guidance to insure a more accurately delivered warhead detonation. Without some ability to change the missile's course during its trajectory to compensate for initial errors, accuracy would be appreciably decreased at long ranges. Thus, for relatively short ranges a free rocket like the Honest John can be used; but for targets deeper in enemy territory—say, over fifteen or twenty miles—the Corporal or Redstone must be utilized.

#### **Guidance problems**

As the missile follows its ballistic path, there are two guidance problems that must be solved. The first is called *attitude control*, or keeping the missile properly oriented in space. It must know the "up" direction from "down," and right from left when commands are computed to correct its path. This information is broken down into pitch, yaw, and roll movements. Gyroscopes and accelerometers are usually employed in an automatic pilot device to detect these errors. The resulting corrections are then sent electrically to the control surfaces to correct the missile's attitude.

The second guidance problem is *path control*, or keeping the missile on the right ballistic path so that the warhead will detonate at an effective distance from the target. The missile's location must be determined, compared with where it should be, and then corrections made to get it on the proper ballistic path. Some of this information is determined by a tracker system which can be either a radar or accelerometers incorporated in a so-called



**LIQUID PROPELLANT ROCKET**

"stable table" within the missile. The type of tracker depends on the guidance system that is used. Because path control is the larger of the two problems, guidance systems derive their name from the type of this control.

#### Guidance systems

For ballistic missiles the types of guidance systems used are usually a combination of preset, command, and inertial.

Preset guidance is the system wherein a predetermined path is set into the missile before launching. This path is sometimes determined by a time schedule that is monitored by a programming device in the missile. The Corporal system employs this form of guidance as it takes off vertically and after a few seconds is pitched and programmed into a radar beam by fire-mission settings made before firing on a "programmer" in the missile. Another type of guidance system is used later for a more accurate trajectory. Preset guidance alone will not give the required accuracy; it results in a trajectory much like that of a free rocket which is vulnerable to non-standard conditions.

Command guidance derives its name from the fact that the missile is directed along its ballistic path by information originating from a ground guidance station. This requires equipment to determine the missile's location and velocity and to compare these two factors with a trajectory needed to hit the target. Corrections determined by the ground guidance equipment are sent to the missile. This system is also used by the Corporal in the form of a radar, doppler-radio, and electronic computer, all of which are located on the ground.

Inertial guidance is the most promising of all the forms of guidance for ballistic missiles because it is contained within the missile and cannot be jammed or influenced by outside electronic radiation. This type utilizes two accelerometers, a stabilized platform (stable table) using gyroscopes, and a computer. The deviations from the desired trajectory are accelerations which the missile undergoes due to misalignment of thrust, side winds, or other forces that act on the missile. The accelerometers determine the distance deviated, and the computer calculates what corrections must be made. The corrections are sent to the control surfaces to turn the missile back on the correct path. Before the missile is fired,

the fire direction center computes the trajectory to the target by determining a series of critical factors such as range, azimuth, rotation of the earth, and meteorological effects. This information must be set into the missile as a standard trajectory so that the guidance system can measure the deviations that occur and correct for them.

The development of the inertial system has been one of the most difficult of all the guidance systems to perfect because of the accuracy required in the accelerometers and the gyroscopes. Progress has been rapid and the inertial system is being improved constantly. In a military sense it eliminates the countermeasures threat and reduces the amount of guidance equipment that must be maintained on the ground. However, the proper calibrations and checkout of this on-board missile equipment require thorough training of the soldier-operators. A small mistake in adjustment of the equipment would be disastrous to accuracy.

#### Getting through the shut-off point

The biggest problem of any ballistic guidance system is to cause the missile to pass through the correct shut-off or burnout point. In spite of all efforts made previous to the firing, the missile will not pass through the predetermined shut-off point in space but will be somewhere in the region about the correct shut-off point; the missile velocity will also differ from the precalculated or standard value. The position and velocity differences from standard are determined by the computer which calculates the resulting miss distance at the target. Since the missile is out of the atmosphere during the top part of the trajectory, the known range error must be stored in a memory device until the air is dense enough to permit a "go-long" or "go-short" command to be executed. This maneuver usually takes place on the descending portion of the trajectory where aerodynamic forces are sufficient for a change in range.

Errors are inherent to a guidance system. Some are geodetic errors caused by unknowns of the earth's size, shape, and gravitational field. As yet, we have no accurate survey tie-in between the many land areas of the world. Therefore, when computing long ranges that take us from a launcher position in one area or coordinate system to a target in another, large errors are likely. Other difficulties are encountered by

so-called systematic earth reference errors such as the effect of the Coriolis Force which is caused by the combination of a rotating earth, a fixed target on the earth, and a missile in space. Until we can accurately determine these errors, there will be limitations in the accuracy of guidance systems. The longer the range, the more severe the effect of these particular unknowns.

#### Honest John

The Honest John is performing yeoman service in the Army today. In addition to providing the atomic-missile punch for the Pentomic divisions, it is the backbone of the air-transportable Army Missile Commands. This large, free rocket with a range in excess of fifteen miles was described in the first article of this series.

The Honest John solid-propellant rocket has no guidance system. Accuracy in range is determined by predicting the burnout point (this type of rocket engine cannot be shut off) through the elevation setting on the launcher and compensating for the air temperature. Stabilization is achieved by spinning the missile when it takes off through the action of small spin rockets mounted on the rocket's body. This is a form of preset guidance and allows non-standard atmospheric conditions to affect the rest of the trajectory. However, for short ranges and large effective-radius warheads, certain target miss distances can be tolerated.

Future developments for the Honest John system emphasize improving the air-transportability characteristics and mobility by helicopter.

#### Corporal

In March of this year, the 531st FA Missile Battalion fired the hundredth Corporal missile at a target on the White Sands Proving Ground range in New Mexico. The battalion had just returned from duty in Europe and the round was part of the annual service practice. Today the Corporal missile system is integrated into the Army's weapons arsenal with battalions on guard for NATO in Germany, and with the Southern European Task Force in Italy. Other battalions are participating in operational tests in the United States.

The Corporal system contains the rocket itself, three vans of guidance equipment, and the missile checkout, servicing and transporting equipment. The missile is a liquid-propellant rocket



Technicians fueling the Redstone missile



Missile men wear special, acid-resistant Polyethylene suits during the fueling of a Corporal missile with nitric acid

some 45 feet long and weighs 11,000 pounds fully loaded. The rocket contains a warhead, guidance components, a high-pressure air tank, propellant tanks for the nitric acid and the aniline, the rocket engine, stabilizing fins, and steering fins.

The three vans of guidance equipment include a radar to obtain missile position and transmit commands; a doppler-radio to measure the velocity of the missile and send shut-off and arming signals; and a computer that uses the information obtained from the radar and the doppler-radio to compute and initiate necessary commands to them.

The Corporal guidance system is a combination of preset and command guidance. A maneuver is preset into the missile to bring it into the radar beam after a vertical take-off. The radar then sends overriding azimuth commands to keep the missile on the target azimuth. At a predetermined shut-off point, the flow of propellants is accurately stopped and the missile now is on a true ballistic trajectory to the target.

At some later time the missile's position and velocity are again measured and the corrections transmitted to the rocket. These corrections are stored until the missile comes back down into the atmosphere when a final range correction takes place. The azimuth and range corrections are accomplished by the movement of carbon vanes during the initial portion of the trajectory, and by the steering fins for the later portion.

#### Firing the Corporal

To get a picture of the firing operations, let's follow one of the battalions in Germany as it takes up a position in the Black Forest and prepares to go through a mock firing against a maneuver enemy. The battalion commander has chosen the firing battery's position and designated three distinct areas of operations.

Into the missile checkout area moves the missile test station truck and the low-bed trailer that carries the missile in a large metal container. A tent is quickly erected and the missile removed from the "can" and rolled on

rails into the tent where checkout begins. Trained crews test the electronic and propulsion components for proper functioning and the huge missile transporter called the "erector" moves up to the missile and picks it up off the rails.

The erector lumbers through the forest until it reaches the launching area. Here the missile is "fueled" with the propellants, and the warhead is attached or "mated." A brief "compatibility" check is made with the firing panel so that the prefire monitoring and warming up of the electronic components within the missile will be done properly. Finally the missile is placed or "erected" on the launcher, and last-minute preparations are made.

Meanwhile, in the guidance and control area the guidance vans are being checked out and the fire direction center is computing the fire mission that has been sent down from higher headquarters. This area is located directly to the rear of the launching site, on a general line with the center of the expected firing sector.

As the fire direction center deter-

mines the fire mission settings, the information is passed to the guidance vans and to the launching area. These settings specify the shutoff point in space for the particular range to be fired. The guidance equipment can now determine the ballistic trajectory to be followed so that the warhead can be detonated over the target.

With the launching area prepared and the guidance vans checked out, the battery commander begins a thirty-minute countdown to coordinate the activities of both areas as the soldier-operators closely follow a set of technical procedures. When time begins to run out, tension mounts as the men in the firing pit follow the dials and lights on the firing panel. As the countdown reaches "3, 2, 1, FIRE!" the red firing button is pushed. Now the missile is programmed through a sequence it would experience on a trajectory and the shut-off, warhead arming and range-correction functions are monitored by the firing-pit crew.

Back in the guidance and control area, the crews in the guidance vans are likewise going through the same firing sequence and commands are sent to the missile at the proper times as would occur along the actual trajectory. The final results are carefully tabulated by the commander, for he knows that a successful mock shoot today may mean a successful mission accomplished tomorrow.

#### **Redstone**

The Redstone has now entered the troop-testing stage with one battalion in training and more to follow. This huge 65-foot bird is the most accurate and reliable missile that can be built with known techniques and available components.

The Redstone system is composed of the missile, checkout equipment, transport vehicles, and propellant tank-trucks. The launcher is fully mobile and can be emplaced, tactically, in almost any type of terrain.

As the 217th Field Artillery Battalion (Redstone) goes into position, only a small number of vehicles and corresponding equipment is required to complete a firing operation. One of the two launchers in the battalion is emplaced on a carefully surveyed location and the missile transport trucks pull into position for the testing and assembling of the missile. The guidance and propulsion components are checked out by the crew in a van

truck that also serves as a firing station. Then the missile sections are assembled, and the missile erected on the launcher by a mobile crane.

As the three-story-high missile rises from a horizontal position, the propellant trucks pull up to the launcher. The fueling crews, suited up in their protective clothing, connect the alcohol hoses and the liquid oxygen (LOx) hoses to the fueling ports in the missile, and the transfer operation begins. A thick coating of frost around the LOx connections testifies to the extremely low temperature of that liquid. The last liquid transferred after the alcohol and LOx is hydrogen peroxide, which powers the turbine pump of the propulsion system.

Now that the missile is erected and fueled, information is fed into the guidance system to establish the ballistic trajectory to the target. The launcher is oriented on the target azimuth and the final countdown is ready to begin. In contrast to the Corporal, there is no ground guidance equipment to warm up and check out since an inertial guidance system is used. The countdown monitors only the guidance and propulsion components in the missile. As the firing button is pushed, the huge missile hesitates for a moment and then slowly rises, gathering speed as the roar of its rocket engine blasts the battalion's camouflaged position. The Redstone ascends vertically for a few seconds and then pitches toward the target.

The inertial guidance system determines the calculated shut-off point. When the propellant flow to the rocket engine is terminated, the missile continues on a ballistic trajectory. Final corrections are made to the missile's path as it streaks down into the atmosphere at thousands of miles an hour and detonates the warhead over the target.

The Redstone represents the Army's longest-range missile at this time, and has proved a valuable research instrument toward future ballistic-missile developments. It is expected to see full operational use in the near future and take its place among the Army's family of ballistic weapons.

#### **Future ballistic missiles**

One of the new ballistic missiles to see action very soon is the Little John. It is actually a scaled-down version of the Honest John, but with improved accuracy and a higher rate of fire. It

is simpler and lighter—ideal for airborne operations—and can be lifted into firing position by helicopter. It still packs a powerful punch and will eventually either supplement or replace the Honest John.

The Sergeant missile is designed to accomplish the same mission as the Corporal. It will incorporate the latest developments in guidance and mobile handling and transport equipment, making it a powerful tactical weapon.

One of the most important Army contributions to the long-range ballistic field is the Jupiter missile. This system is a logical step toward the development of an intercontinental ballistic missile.

#### **Tactics of missile warfare**

There is no doubt that the introduction of the ballistic missile to the battle area and beyond will exert an astounding influence on tactical concepts and organization. The Army's initial step in this direction is the concentration of this fire power in Army Missile Commands.

The relatively long ranges of these weapons and their capability to deliver atomic weapons over a target have raised many problems and controversial concepts. Long ranges that outstrip conventional means for target identification, location and observation demand new developments. A reconnaissance type of guided missile for target acquisition and collection of information is essential. The extension of sky cavalry and the utilization of light jet aircraft might be part of the solution.

Limited feasibility studies open a profitable area of investigation. Missiles with ranges of 200 to 500 miles would greatly enhance the field commander's ability to control the highly mobile action of the atomic battlefield either directly or indirectly. Perhaps the Redstone can be improved for longer ranges. This would make it available to units already organized.

An interesting concept fostered by long-range atomic missiles is the possibility of artillery attaining the status of a primary arm in addition to its traditional mission of supporting arm. This may be the direction in which the U. S. Army Missile Commands are headed, guided by the path of their ballistic missiles: Honest John, Corporal, and Redstone.

The third and final article in this series will discuss antiair missiles, including the anti-missile problem.

# TIME FOR COMMAND

**Dispersal against atomic attack will call for vital changes in our command structure. Here is a plan to fit future needs.**

**MAJOR THOMAS J. McDONALD**

OUR present command structure will be an anachronism on tomorrow's battlefield. The tempo of action, the fluidity of forces and the vastly extended areas requiring control make it worse than obsolete. The time has come for a drastic shortening of command lines. Responsibility must be delegated to a degree commensurate with atomic mobility. What somehow sufficed for other wars in other times will not be good enough for tomorrow.

In the present infantry division three or more infantry elements, division artillery, tank, reconnaissance, engineer and a conglomeration of other elements are all under one commander. At the corps level we frequently see a highly staffed headquarters controlling no more than two divisions, and often an army commands only two corps. Between the army commander and his company-level leaders we have as many as four operating echelons each, including a general staff which in effect constitutes an extra link in the chain of command. For all practical purposes there may be as many as eight levels of action or review between the top

and the working levels of control.

#### **Increased Firepower and Mobility**

In considering this command structure we must recognize that there has been a quantum jump in firepower; and it is increasingly apparent also that we are in the midst of a revolution in mobility. New developments in high-lift aircraft, improved surface vehicles and communications offer a challenging opportunity to jettison cumbersome old systems, and we are integrating these means now. It is equally essential, however, that we revamp organization so that our most important element—leadership—can really function. It is time to unshackle the combat leader and let him command to the full limit of his capacity.

A tactical commander cannot deal personally with more than a few—a half dozen at most—key subordinates. A wider span of control is unrealistic. At regiment, corps or army, the leader needs time to absorb orders and information from higher authority; coordinate with his equals to right, left, and in support; see his own combat forces, personally and constantly; and absorb intelligence.

But most of all, he needs time to think creatively, individually, and under the best conditions possible. Time to decide is critically important. He cannot do this and at the same time engage in the details of active coordination with several major elements during critical, fluid situations.

#### **Immediate Decision**

The speed with which major redeployments can be effected through im-

proved transport means will permit radical changes in combat situations in a fraction of previously required time. The impact of nuclear weapons on friendly as well as enemy forces will cause instantaneous unbalance which heretofore took weeks of attrition.

Strikes of this kind must be countered or exploited rapidly and spontaneously—not through tediously prepared operations orders with all "Ts" dotted passing through eight levels of control. The combat commander must be able to make rapid adjustments to meet suddenly imposed conditions. Long, complex command lines involving essentially unnecessary intermediate headquarters may spell disaster. Overextended span of control at certain levels will be equally crippling.

#### **The Future Viewpoint**

In the weapons system of tomorrow the army commander through his Redstone and possibly other missiles will control the elements of major decision. His ability to influence the battle will hinge less on long-range policy decisions, allocation of supply, and so on, and more on resolution of immediate tactical questions.

The question of which subordinates he should personally control is all-important. (See chart on page 54.)

Projecting ourselves several years into the future and assuming the viewpoint of an army commander, what are the considerations?

He is confronted by an enemy possessing a weapons system which, like our own, includes missiles with ranges of many hundreds of miles, capable of pinpointing targets with megaton war-

**Major Thomas J. McDonald,** Ordnance Corps, until recently was Ordnance Special Representative at CGSC where he served as instructor and member of the Combat Developments Department. In Korea he was ordnance officer of the 2d Infantry Division. Besides two previous articles in ARMY, his writings have been published in other magazines. He begins work toward a Master's degree at Babson Institute this summer.

heads; both sides will have antiaircraft missiles of great accuracy and effectiveness. We will have, we hope, adequate numbers of high-lift cargo aircraft that can operate from unprepared fields, and fleets of improved off-road, amphibian and cargo-carrying surface vehicles. Major units will move with the celerity of yesterday's platoon.

#### The Long Arm of the Missile

The most potent aspect of these forces will be their firepower. The army commander will be able to reach out at several times the speed of sound and inflict thermonuclear disaster on target complexes hundreds of miles behind the enemy's front, of unleashing the equivalent of multiple-battalion artillery concentrations with a single tactical missile. Firepower is no longer a supporting element. It has achieved equality with maneuver. If the infantry is queen of battles, tomorrow's artillery will be king. Certainly, therefore, one key subordinate of the army commander must continue to be the artillery commander.

#### Intelligence—Prime Essential

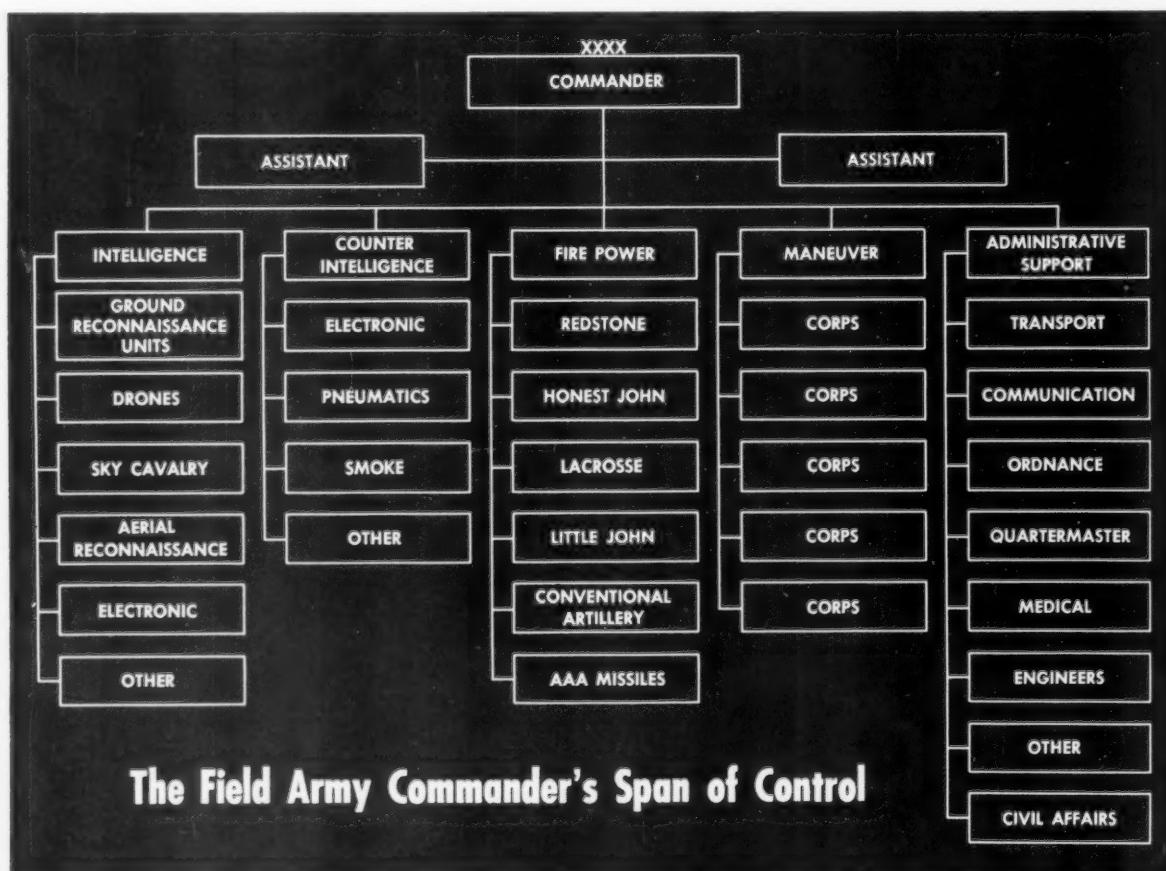
Next, the significance we must now associate with target acquisition raises intelligence from an important activity to the prime essential of war. The time available for collecting intelligence will be drastically compressed by the new firepower and mobility. The degree of effort applied to intelligence collection must be expanded at all levels on an unprecedented scale. Conventional intelligence collection must be exploited fully, and it must be supplemented by new technical means under development. The forces engaged in the intelligence effort will be more numerous than ever before, and for that reason one of the army commander's immediate subordinates should be an intelligence commander who will direct the activities of all major agencies (from drone squadrons to sky cavalry, from electronic monitors to clandestine agents and cavalry regiments). Perhaps as much as a quarter of the field army's strength will consist of intelligence units.

With the rise of intelligence to a new level of importance, counterintelligence activities become correspondingly vital. This effort must run the whole gamut of military activities. One of the army commander's immediate subordinates should perhaps be a counterintelligence commander controlling all special forces needed to carry out a continuing and comprehensive screening and deception program. Such a program cannot be overemphasized.

#### Reduced Role for Logistics

Tomorrow's army logistics or, more properly, "administrative support" (which includes all back-up of the combat elements) will be much reduced from that of today. A subordinate commander is necessary here also, with authority over all transport, communications, and matériel support agencies.

The logistical tail of the field army will be drastically cut. The only installations it will operate will be receiving and distribution points located near enough to combat groups for



those units to receive support or to evacuate their casualties. These distribution points, equivalent in size and function to today's division distribution points, will be supported by air and improved surface lift from bases hundred of miles to the rear. Army normally will operate only this one echelon of logistics support—for distribution and evacuation.

The chart on this page shows schematically a field army in the attack.

#### Fighting Element—the Corps

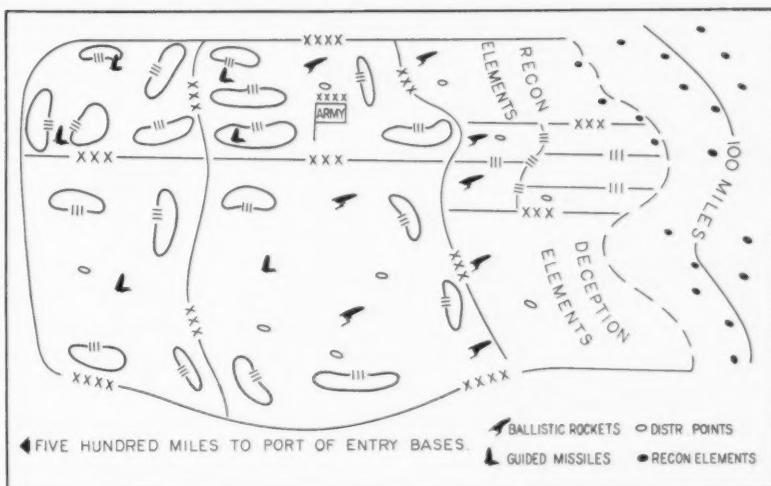
Finally, we have the maneuver elements, the fighting formations which drive the enemy into situations conducive to destruction by fire, or close with him when restrictions preclude employment of mass-destruction weapons.

Let us say that in tomorrow's army these maneuver elements are corps—two, three or more, depending on the number of smaller subordinate elements involved. For conditions of warfare involving limited use of atomics (selectively against troop and matériel targets on the line of contact, with only limited use of larger mass-destruction weapons against strategic targets) several corps will doubtlessly be required. If the nature of battle becomes primarily an exchange of major nuclear blows—a long-range duel with high-yield missile weapons—the number of corps will be substantially less, for the entire face of the battlefield will be changed.

Let us eliminate the division *and* the battalion echelon and visualize each of these corps controlling from three to six combat groups consisting of fully mobile mechanized infantry or armored elements, each group containing organic direct-support weapons and minimum medical and maintenance strength. The shorter command line will improve tactical responsiveness.

Each combat group may control from three to seven company-sized elements of amphibian-mechanized infantry and armor. Thus, in a field army of five corps, each controlling five combat groups and each combat group controlling five combat companies, we will have a total of 125 companies in all—a force perhaps twice as large as the reconnaissance elements which constitute the army's eyes and ears.

These maneuver elements, the corps, will be directed by a deputy army commander serving on the same level as the fire, intelligence, counterintelligence, and logistics commanders.



A future field army deployed under atomic conditions. Forces are widely dispersed in depth as well as width to minimize increased weapons ranges and effects. The ability to concentrate is provided by high-lift aircraft capable of operating from short, unprepared fields. In this situation a screening force under direction of the intelligence commander is preceding the advance of the army. Other intelligence elements are disposed on the left wing of the main battle force. The principal maneuver elements are indicated here in the center of the force prepared for early action or widely dispersed throughout the army area. The plan of action requires an extensive deception effort on the right front and in the simulation of missile, troop and logistics activities in rear areas.

#### Planners and Doers

These key subordinate commanders will be both planners and doers. Although the army commander will have a small staff to maintain continual graphic representations of events, his principal reliance will be on the individuals discussed. Planning will be of a personal but general nature, with the commander issuing mission-type orders, broad objectives and standing operating procedures as the basis for most action. He will, however, be able to make spot decisions at any time and have them quickly implemented. To assist in coordination of all operations, a second deputy will direct operations of the army's command post.

#### Mobility Plus

The basic characteristic of this field army would be its ability to disperse and concentrate rapidly. Widely disposed across its area of operations, this force would seek safety against nuclear saturation through the distances maintained between its component units. Its own reconnaissance elements would find the enemy. Its maneuver elements would fix him where necessary. His destruction would be effected by fire

or, if this was not desirable, the inherent mobility of this force would permit rapid concentration of assault elements to close with and destroy the enemy.

The subordinate elements of this army would not be so specialized as to be impotent in a general situation. Maneuver elements would have organic fire support, reconnaissance elements would have some staying power, and artillery would have ground-support strength to provide reasonable security, but basically this streamlined force with its great capability for movement and fire would be the tool of the army commander—quickly responsive to his leadership. A similar reappraisal of command relationships must be made at subordinate echelons.

Hydrogen weapons, new developments in mobility and communications make the old approach to the command problem as obsolete as the Continental musket. We require improvements in command structure on a comparable scale.

Let's shorten command channels, delegate responsibility along practical operating lines, and make certain there is time for command.

There is no substitute.

# THE MONTH'S READING

## What Do We Do About It?

MARSHAL OF THE RAF SIR JOHN SLESSOR  
Address, Military Industrial Conference  
Chicago, March 1957

The history of the past few months should surely by now have made it clear that we cannot hope to solve massive problems by sitting back and "leaving it to UNO." I am all for using UNO as much as possible and trying to educate it into a sense of responsibility—it will take a generation at least. But—as the President has said—it "cannot be a wholly dependable protector of freedom" (a studied understatement if ever there was one). And as long as it is clearly powerless except against decent democracies whose conduct (in Dean Acheson's words) is "restrained by conscience and popular control," it would be absolutely suicidal to reject the use of force, if necessary *outside* UNO, to defend a literally vital interest like the Suez Canal, or prevent another small weak country—Austria for instance—being ground under the Muscovite heel.

If I may say so, I do not see the U. S. "leaving it to UNO" if someone suddenly decided to "nationalize" the Panama Canal and stop U. S. ships going through.

So I think we should reaffirm Allied strategic policy as it exists; work through UNO to the utmost possible extent short of suicidal sacrifices of our vital interests; but be prepared in the last resort to use, not only political and economic sanctions, but in the last resort force outside UNO against any Communist Power or stooge who threatens those vital interests; and above all work *together*, with a common policy and purpose—not only *ad hoc* in a panic when some crisis arises (like at the time of Dien Bien Phu), but in consultation in advance, not always dancing to the enemy's tune, but taking the initiative, foreseeing points of tension and agreeing in advance upon how to deal with them.

## Economy or Parsimony

MARSHAL DE SAXE  
*Reveries on the Art of War*

Without going into detail about the different rates of pay, I shall say only that it should be ample. It is better to have a small number of well-kept and well-disciplined troops than to have a great number who are neglected in these matters. It is not big armies that win battles; it is the good ones. Economy can be pushed only to a certain point. It has limits beyond which it degenerates into parsimony. If your pay and allowances for officers will not

support them decently, then you will have only rich men who serve for pleasure or adventure or indigent wretches devoid of spirit.

## People Are More Important than Things

GEN. WILLARD G. WYMAN  
Address, National Commanders Conference  
of the American Legion  
Norfolk, 17 March 1957

The Air Force can be proud of its latest planes. The Navy can be proud of its latest ships. But the Army is just people with weapons in their hands. The weapons come and go in an unending progression at a rate in keeping with the times. But people remain—and always will—the decisive element in peace, the conclusive element in war.

As the weapons come and go, however, they exert a profound and lasting effect upon the patterns and speeds with which people must be capable of fighting if they are to win or even survive any kind of military victory.

With the advent of nuclear fire power, drastic changes in patterns and speeds of employment were forced upon all elements of the Armed Forces. Thus began a new chapter in what is really an old, old story—especially to the Army. Like all the others, this chapter could have a sudden and tragic ending if the Army failed to play its role.

As regards new patterns designed to cope with and exploit nuclear fire power, I am happy to report that the Army's work is advancing very rapidly. Already we have in being the world's first ground units organized and armed specifically for the atomic battlefield. . . . With its pentagonal structure and new weapons, the new division organization greatly increases the ratio of fire power to manpower while decreasing the ratio of service to fighting personnel. Each of its five battle groups will be capable of the semi-independent action normal under the conditions of dispersal anticipated in atomic battle.

. . . While we might wish that our evolutionary pace were faster than the present allocation of taxes for new tools permits, we are not waiting for more money. We are going ahead adapting what we have on hand and on the way, just as our forerunners did for more than a century at Fort Monroe.

\* \* \*

When I come to our capability for speed of employment, I must confess that we are experiencing some labor pains in our work. The first labor pain is not a case of limited adaptability but a case of limited means. I refer to the limited status of our strategic airlift and the means for vertical mobility within a battle area. . . .

The second labor pain could be even more serious. It affects the most important element of the Army: *people!* In this case, it is caused by a severe shortage of public awareness. . . .

\* \* \*

When an atomic age Army unit goes through the complex maneuvers of ground warfare, nobody sees it except the umpires! Even if the public could see it, they wouldn't understand it. The scale is too big, the factors involved too technical and complicated. Consequently, much of the general public is laboring under the impression that the Army can train men to fight today as we were compelled to do in World War II and Korea—in a matter of a few months!

\* \* \*

With the intricate weapons, tools, tactics and teamwork required to field a combat team for atomic battle, there is no more complex instrument in the world today than an Army unit! So the truth is that people in the Army today need vastly more training than soldiers have ever been given before! Until the public realizes this, our labor pain will continue to be very serious.

## The Program of DCSLOG

LT. GEN. CARTER B. MAGRUDER  
6 March 1957

Our concern must be primarily directed toward avoiding an excessive and restrictive degree of control that burdens subordinate echelons with reports and robs them of initiative and authority to act.

## Lessons of the Hungarian Uprising

N. GALAY  
Bulletin of the Institute for the Study of the USSR  
February 1957

The Hungarian rebellion provided some valuable information on Soviet troop morale. The political unreliability of the Soviet troops during the first phase of the rebellion can be proved by a number of circumstances. On the other hand, the new units brought in from the USSR proved to be reliable both in the struggle with the rebellion and in cases of restoring order among the demoralized Soviet troops who had participated in the first phase of the uprising.

This brings up the following questions: (a) What predetermined the reliability of the Soviet troops in the first phase of the events? (b) What predetermined their reliability in the second phase of the uprising? (c) Was this demoralization an incidental and transitory affair whose significance must not be overestimated, or does it reveal a serious political situation in the Soviet armed forces?

The unreliability of the Soviet troops in the first phase of the events was conditioned by political and military factors, whose influence cannot be separated: military failures

cause political demoralization and the political unreliability of troops undermines their fitness for battle. A prolonged period as occupation troops had weakened the political indoctrination of the Soviet troops and the mass nature of the uprising was bound to affect their morale. The disintegration and partial defection of the Hungarian army likewise played its part in the demoralization of the Soviet units. The military reasons were: the small numbers of occupation troops in Hungary, the unsuitability of tank forces deprived of strong infantry support in street fighting in a large city where they are highly vulnerable in a close battle with a determined enemy, and the usual deterioration in discipline as a result of the prolonged occupation of another country.

Although both factors played a more or less equal role, in the first phase of events the most important part was played by the political factor in the form of earlier happenings in Poland, which ended in the Soviet withdrawal and the abandonment of the idea of restoring "Soviet order" in Poland with armed intervention. Both the Soviet command and troops in Hungary could have expected the same course of events there.

The introduction of 12 or 13 new Soviet divisions from the USSR fundamentally altered the situation. The massing of troops was even more impressive because the main group of Soviet forces surrounded Budapest, the main center of the rebellion, while the remainder cut Hungary off from the free world. In such a situation, with a course intent on mercilessly crushing the revolt, any traces of political unreliability among the new Soviet troops were overcome by the knowledge that the rebels' position was hopeless. Many factors point to possible apprehensions of the Soviet command concerning the reliability of the fresh troops: the whereabouts of the troops was concealed (many thought that they were in Germany), they were misinformed, told that they were fighting against "American paratroopers" supporting the "fascist" rebellion. The absence of any infantry divisions in Hungary substantiates these fears. It would have been impossible to secure the necessary isolation of the troops from contact with the population if large numbers had been deployed to crush the uprising. Violating their own tactical conceptions on warfare in inhabited areas, the Soviet leaders attempted to achieve isolation with the armor of their tanks. Thus, the political reliability of the Soviet troops in the second phase of the Hungarian operation was ensured by military measures: the creation of those prerequisites necessary for complete military success, the severe punishment of demoralized troops, and the use of those branches of the army not likely to come into close contact with the population, particularly tank forces.

Thus, we may conclude that the willingness of the new Soviet units to act does not necessarily refute evidence of a political crisis in the Soviet armed forces, a crisis which is not of a passing, but potentially chronic nature. An extremely important symptom of it was the total demoralization of peacetime cadre troops in the first stage of the events, even making allowances for exaggerations in Western press reports.

# THE MONTH'S CEREBRATIONS

## HOW MUCH FOR HOW MUCH?

MAJOR JOHN J. WEINZETTE

**I**N Korea in 1951, Major General Clark L. Ruffner put it this way: "If you can't administer, you can't fight!" This being so, we should all take a long, hard look at military administration and make every effort to improve its efficiency.

Today, while we possess intricate combinations of men and machines, and vast potential forces for mass destruction, we have no really comparable administrative system. While tactical development has moved ahead, improvements in administrative and personnel management have lagged. No really major changes were made through the organization of the Administration Company in the new Pentomic division. It is, however, a first faltering step in the right direction. The current burden of administration on lower-unit commanders points up the disadvantages of our present system and indicates an ultimate divorce of heavy administration from all units below division headquarters—and eventually from the division itself. Our personnel and administrative problems, already critical in some areas, may become in many respects more important than the technological problems facing us.

The ever-present elements of misunderstanding and misinterpretation are two of the greatest brakes on progress. The solution is simplification. We still use the conventional typewriter with its upper- and lower-case type; we still use subparagraphing in military letters. ("When a paragraph is subdivided, there must be at least two of the same subdivision," says AR 340-15.) Is it really necessary to have two equal subparagraphs? Is this simplicity? The answer, of course, is an emphatic *no!*

The current regulation on "Selection of Enlisted Personnel for Attendance at Army Service Schools" is chaotic,

confusing, and full of cross reference to other publications. There you'll find a hodgepodge of jargon for categories, standards, eligibilities, amendments, waivers, clearances, clothing, duties of major overseas commanders, dependents, leave, temporary duty, permanent party and permanent change of station personnel. Simplification? Certainly not!

We complicate administration by requiring indorsements at all levels. Can't we assume that when a headquarters officially passes on a letter to the next higher level, such release constitutes a recommendation for approval? Why require intermediate headquarters to formally acknowledge and indorse such correspondence by recommending approval? Why not the simple device of using a rubber stamp? You may say we can't violate long-standing prerogatives. I say, "Go modern—live a little!"

We define personnel administration as the process of planning for, organizing, directing and supervising personnel so as to obtain the maximum use of military manpower. If we have another "emergency" or war, millions of men will be inducted, most of them completely unfamiliar with our complex administrative processes. The result of this will be a high ratio of administrative workers to fighting men. The ratio cannot be reduced until efficiency and simplicity are further introduced into our administrative pro-

cedures.

Automation can help us. The increased speed, accuracy, and capacity of electronic marvels like UNIVAC, RAMAC and BIZMAC lend themselves to many possible uses such as eliminating individual service and qualification records, maintaining only essential data on punched cards or tape; machine-prepared unit rosters for commanders at all levels, containing all information necessary to effectively exercise command duties; machine-prepared payrolls, perhaps using checks instead of cash.

These machines can produce a flow of information from company or battery to army, back to intermediate unit with information copies, and returned to originating unit in a matter of hours. But we must augment the gain in speed by examining the information itself. We simply can't afford to maintain the facilities for such an elaborate flow of information and statistics as we had in World War II and Korea.

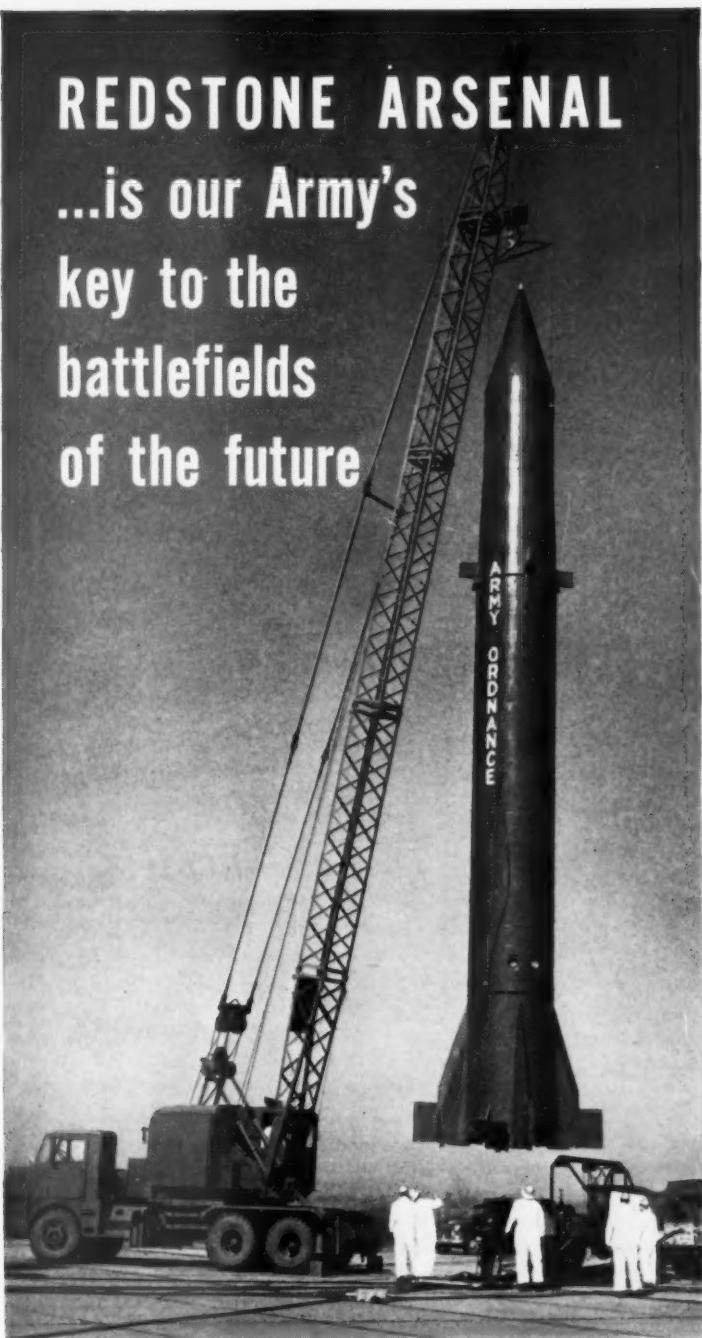
Many of us consider command and the management aspect of personnel administration as inseparable. But are they? Traditionally, yes; but once we rode horses in the Army! It is entirely conceivable that both command and administration are big jobs. Let's face reality then and admit the trend toward two types of specialization in the Army: the combat army specialist and the administrative-logistical specialist. Our complex weapons require specialists to operate them, and specialists are needed to procure, deliver, and service those weapons. Once we accept the specialization theory, this whole business becomes clearer.

Consider the Administration Company. As a specialized unit, primary emphasis has been placed upon its ability to sustain the administration of the division while it is in combat and to regulate, give advice on, and supervise the division's administrative load when it is not fighting. This is now

This department is designed to accommodate the short, pithy and good humored expression of ideas—radical and reactionary, new and old. We pay for all contributions published but you deserve to be put on notice that the rate of payment depends upon the originality of the subject and the quality of writing rather than length. This department is hungry for contributions, so shoot that good idea in . . . today.

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JUNE 1957

• One of eight permanent Ordnance Corps arsenals, Redstone is the center for the Army's rocket and guided missile program. Its 40,000 acres are located on the Tennessee River near Huntsville, Ala., and house research laboratories, environmental test equipment and several rocket-testing ranges. Redstone Arsenal's military and civilian scientists and engineers produce weapons ranging from a tiny training rocket to the giant IRBM, now being developed on a crash basis by the recently-established Army Ballistic Missile Agency.

From the research, development, production and field service headquarters located at Redstone flow thousands of directives covering the rocket and guided missile work being done by research laboratories, universities and private industry throughout the nation. Weapons systems developed by this Ordnance-Industry team include the Super Bazooka infantry rocket, the Honest John artillery rocket, the Corporal missile and the Nike anti-aircraft missile.

Scientific barriers of all kinds are being broken by the 9,000 employees of Redstone Arsenal, but the exciting and difficult technology of guided missile development constantly presents new problems. Electronic computers click away at missile trajectory formulas by day, while at night rockets equipped with headlights streak down-range, adding valuable data to our country's newest arsenal of defense.

**REDSTONE BALLISTIC MISSILE** — This long-range rocket-powered, bombardment weapon was developed by the arsenal's guided missile team headed by Dr. Wernher von Braun. The Redstone is the progenitor of the Army's IRBM, the Jupiter.



**FORD ENGINEER** checking voltage and frequency accuracy of power supply unit under simulated load conditions in a project for the Guided Missile Development Division of the Redstone Arsenal.

accomplished by "pooling" the personnel sections of all units into a so-called division administrative center attached to the Administration Company under the "operational control" of the division's adjutant general. Recently, operational control was defined as "whoever has such control has responsibility for the failure of the performance of the mission of the organization but has no authority over it." In scientific management, it is axiomatic that centralization of like functions produces improved operational efficiency and economy. If these personnel sections were really pooled in the Administration Company by as-

signment rather than by attachment, there would be personnel savings, fewer mistakes, speedier decisions in personnel actions, and less paperwork at all levels. This complete integration and consolidation of personnel functions would not conflict with the authority of any level in the chain of command. Although this consolidated section would actually execute personnel actions, the responsibility for proper personnel management and proper personnel utilization would remain with the commanders. They would still promote, reduce, discipline, make awards, change and award MOSs and by their published orders perform all the cus-

tomary command functions. This reorganization would reduce noncombat personnel by twenty per cent.

Our military administration must, along with our combat groups, grow "lean and mean." Success for the commander in battle rests on a tripod of leadership, technical competence, and administrative ability. None can fail.

"If you can't administer, you can't fight!"

**Major John J. Weinzelte** was a combat engineer in World War II and later an infantryman. He transferred to the AGC in 1955, and is now a member of The Adjutant General's Board.

## MODERNIZE THE SNIPER RIFLE

**JOHN L. HOFUES**

**O**UR snipers are equipped with makeshift weapons!

The M1-C and M1-D sniper rifles are merely M1s, augmented with a telescope sight of low magnification. Low magnification means inferior resolving power. Clear aim at long ranges, or at dawn and dusk, is next to impossible. The ammunition for the sniper rifle is not precision quality, but regular issue caliber .30 type which does not develop enough speed to insure an adequately flat trajectory. The new M14, if augmented with a telescope sight, will be merely an M14. It is automatic and semiautomatic—a feature considered desirable for our basic infantry arm, but it is not much different from its M1 parent in fundamental principles of operation and mechanism. The design of the M14, like the M1, is a complex of intricate parts. Consequently, firing vibrations, expansion and contraction are irregular. The M14 is accurate enough for the ordinary requirements of combat, but it was not specifically designed for sniping.

Making first-round hits with such a combination is about as easy as eating Jell-O with chopsticks.

The sniper's job is to kill enemy weapons crews, officers, snipers, or any enemy soldier who comes within his range. He must do this under extremely adverse conditions. Often his target will be only binoculars under a helmet at some distant OP, or the face of a machine-gunner above the muzzle of his weapon. The range may be as little

as 100 yards, or as great as 1,000. Smoke, dust, haze, fog—or just poor light—increase his difficulties. Only the very highest standard of precision from sniper rifle and sniper will do.

The M14 rifle can be carefully fitted and adjusted by ordnance experts to improve accuracy. But in the field such work is of little value to the sniper. He must break down his rifle for cleaning. Disassembly and assembly are enemies of precision fitting.

A simpler design of rifle, without the inherent disadvantages of gas cylinder, operating rod, and difficult-to-bed barrel will help to spell the difference between large shot groups just small enough to ventilate an ashcan and small shot groups small enough to core an apple.

However, the problem of accuracy is not entirely the fault of the M14 rifle. Some of the lack of precision lies in its ammunition. Standard production methods for service-rifle ammunition cannot be sufficiently painstaking in the minute details essential to the manufacture of precision ammunition. Ballistically large variations of case volume and thickness, weight and texture of powder, composition of primer, and tension of case crimping on the bullet are possible—just to mention a few considerations.

The 7.62mm cartridge for the M14 rifle and M60 machine gun is described as developing ballistics "comparable" to the older and longer .30 cartridge for the M1. The 7.62mm is well known commercially. The identical cartridge in dimensions and ballistics is used for sporting purposes as the ".308 Win-

chester." Muzzle velocities of both commercial and service 7.62mm ammunition average about 100 fps less than the former caliber .30. Shot groups fired with the 7.62mm indicate accuracy on a par with the older .30.

FM 21-75 states that the sniper rifle is capable of making a shot group 18 inches in diameter or less at 600 yards. (The "or less" is not a frequent occurrence.) That standard of accuracy is ridiculous when compared with the size of an enemy soldier's head. Some interesting illustrations in FM 21-75 show the aiming point to be taken at various ranges beyond (or less than) the range for which the sniper rifle is zeroed. For example, when the zero is for 300 yards, to hit at 500 yards it is necessary to aim above the point you wish to hit by about three feet! When the zero is for 400 yards and firing is at 600 yards, the correction in high holdoff is about four feet!

Such large vertical errors, coupled with large-diameter shot groups, reduce the probability of first-round hits quite drastically. Modern warfare conditions, generated by new weapons, greater mobility, and more small-unit independence, place more emphasis on speedy and efficient killing by our snipers. Time-consuming range estimation and sight adjustment must be cut to the very minimum. The present caliber .30 service-rifle cartridge lacks the precision and flat trajectory necessary for serious sniping.

Telescopic sights for the M1-C and M1-D sniper rifles are about 2.5X magnification. A target at 500 yards appears to be only 200 yards away when viewed



## The high frontier

Far to the north of settlements, roads and railways, DEW line outposts stand guard over America. They were built with the help of Fairchild C-123 transports, which flew in the men and the construction material—even the radar antennas which now scan the arctic skies.

The C-123 commuter service to the DEW line goes on at the rate of up to eight tons of cargo per plane—

and at the end of the line the landing strips have proven too rough, too hazardous for any other heavy-duty transport now in service.

The members of this polar bear club have come to depend on the C-123—just as the U. S. Armed Forces everywhere. The C-123 shares these qualities with other Fairchild aircraft: ruggedness, reliability, and ever increasing utility.

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through a telescope of that magnification. It sounds fine—but there's a catch. The sniper cannot count on having the entire figure of an enemy soldier for his target. The most he may get is the indistinct outline of half a head peering through brush. The issue binoculars of 6X or 7X afford a good view. But when our sniper attempts to put the crosshairs "right between the eyes" with his 2.5X telescopic sight, he is likely to get a nice neat fadeout—just like the last scene of a happy-ending Western movie.

Should our new sniper rifle be equipped with such an inadequate sight?

Is the ideal sniper rifle an impossible dream? Perhaps, but we can approach close to the ideal. Maybe we can't get the weapon that will knock out a gnat's eye at 1,000 yards, or one that shoves its bullet straight as a light ray for a mile, but most certainly we can develop a sniper rifle that will shoot far flatter with much more consistent accuracy, and we can equip it with greatly superior sighting equipment.

The relatively new commercial Winchester Model 88 offers an excellent basis for beginning development. Its mechanism is relatively simple: no gas cylinder or other metallic attachments interfere with barrel vibration.

Maximum speed of fire and maximum reliability of operation are just as important to the sniper. The Model 88 offers the fast lever-action design, (but unlike the older lever-action rifles) combined with the precise rotating-bolt locking system. Rotating-bolt locking gives superior breeching (chambering) performance and maximum strength for using modern high-intensity ammunition developing substantial firing pressures.

Of course, the Model 88 should be modified to incorporate a double-action trigger mechanism and a loading gate. The sniper is in combat too.

A telescopic sight mounts neatly (and more efficiently) on the Model

88 type because the bolt does not open directly on top (as it does in the M14), but to the side. Ejected cartridges thrown out with considerable force will not strike the telescope sight, and thus will decrease the possibility of damage and malfunction.

The only suitable telescopic sight for a modern sniper rifle is one that may be adjusted from medium to high magnification. An adjusting capability of from 4X to 10X is close to perfect. The 4X setting is fine for the fast-moving conditions encountered in urban fighting when the sniper must hit darting and dodging enemy troops at the closer ranges. The highest magnification, 10X, is equal to conditions of poor light and extreme ranges. Absolutely sharp definitions of targets among protectively neutral or shadowed backgrounds is a must in just the preliminary action of detecting the target.

Several excellent commercial models of variable-power telescopic sights are available for study. Bausch & Lomb types adjust from 2.5X to 8X and from 6X to 24X. A Weatherby model adjusts from 2.75X to 10X.

As for sniper ammunition, let's face the fact that only precision cartridges can do precision work. With ammunition of lesser quality the true capabilities of our snipers will never be realized. Target-match grade ammunition is made for issue to Army rifle teams. Why can't we supply our snipers with ammunition as good or better?

Perhaps the most logical starting point in cartridge case design for modern sniper-rifle ammunition is the commercial caliber .348. This case, made a bit longer and reduced in neck diameter to take a caliber .24 bullet, has many points to recommend it.

The .348 case has a large-diameter head, long tapering body, and a good bottleneck shoulder. These dimensions spell large powder capacity, efficient distribution of firing pressure, and excellent powder combustion. Add the

small-caliber bullet—but long and heavy for its diameter—and ultra-high muzzle speeds without ruinous recoil will be obtained. Killing power and penetration of the much faster caliber .24 bullet will equal the performance of the new 7.62mm service-rifle bullets.

Accuracy with caliber .24 bullets is superb. Shot groups of 1.5-inch diameter at 100 yards are made by commercial rifles in that caliber. The M1-C or M1-D rifle cannot boast such precision, nor can the M14.

The caliber .24 rifles are used successfully by hunters for antelope and mountain sheep. Both species of game have been bagged at fairly long ranges with the small bullet. And those commercial caliber .24 cartridges have smaller capacity cases than the one I recommend.

Bore erosion from heavy powder charges and ultra speeds need present no problem either. New alloys like Stellite (a chrome-cobalt composition used in the bore of the new M60 general-purpose machine gun) are available which are heat- and friction-resistant.

Ultra-high speeds will result in a considerably flatter trajectory curve. Where caliber .30 and 7.62mm bullets drop three feet or more at 500 yards, caliber .24 bullets—at muzzle speeds of from 1,000 to 1,200 feet per second higher—would drop less than half of that.

With such armament the American sniper, shooting fast, reaching far out, will be a powerful agent on the rapid-action atomic battlefield. For he will have the most efficient—perhaps the most psychologically terrifying—force of combat: the precisely placed bullet.

**John L. Hofues**, firearms student, shooter and experimenter, wrote "Bring the M1 Up to Date" (January) and "Pistols, Holsters and Cartridges" (March). He is a civilian Educational-Special Writer at The Infantry School.

## FABLE FOR TOMORROW

### MAJOR GAMMA RAY

ONCE upon a time, in the land of Gruba, there lived little people only three inches high. They settled arguments between families with cotton balls at ten paces. Of course this was inconclusive and relatively harmless, but it sufficed to settle disagreements.

In the course of time, however, an ambitious but morally strong Grubian named Joe Smith discovered that by putting unpopped corn into his cotton balls and heating them, they would explode after he threw them. He tried this in an attempt to settle an argument in favor of the Goods, who had been attacked by the Bulgins. His ex-

ploding balls were devastatingly conclusive—so much so that Smith decided he would never use them again—or tell anyone his secret. However, to be on the safe side, he converted all his cotton balls into bang balls. Thus Joe became very powerful, and used his prestige and wealth to do many fine things for the less fortunate Grubians.

## SECOND STORY MAN

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NORTHWEST ORIENT AIRLINES  
OZARK AIR LINES  
PACIFIC NORTHERN AIRLINES  
PIEDMONT AIRLINES  
RESORT AIRLINES  
SOUTHERN AIRWAYS

SOUTHWEST AIRWAYS  
TRANS-TEXAS AIRWAYS  
TRANS WORLD AIRLINES  
UNITED AIR LINES  
WEST COAST AIRLINES  
WESTERN AIR LINES  
WIEN ALASKA AIRLINES

DEPENDABLE, SCHEDULED SERVICE SAVES MILLIONS OF VALUABLE MAN HOURS FOR THE MILITARY

But soon another Grubian named Chevkrush, also very ambitious but also very ruthless, got hold of some bang balls. He didn't discover how to make them, but some of Smith's fire-tenders, for money or because they thought Chevkrush had the answer to utopian living, went over to Chevkrush and told him how. So the canny Chevkrush, always smiling, made many bang balls—as many as Joe did. But being cunning, he also kept a stock of cotton balls.

Joe Smith kept no cotton balls because he thought his bang balls would keep people from bothering him and his friends. So he prospered and continued making his friends happy by building fine houses and parks for them. Joe's places became so grand that Chevkrush coveted them.

On the pretext of sharing his democratic and happy way of life with some of Smith's friends, Chevkrush attacked them with cotton balls. "You won't like this, but it's good for you," he said as

he ploughed across their back yards. "What's good for Chevkrush is good for other Grubians."

Poor Joe just didn't know what to do. He had no cotton balls left, and if he used bang balls he would blow up his friends and maybe even all of Gruba. It was a terrible dilemma. He talked to Chevkrush over a friend's back fence. Chevkrush swore he was only helping Smith's friends, and anyone could see his cotton balls weren't really hurting anyone. Besides, Smith's friends had asked him to come in to help them.

Then said Chevkrush: "Maybe, Mr. Smith, you might want to leave me alone, because not only do I have an awful lot of cotton balls, but also I have as many bang balls as you have. So get out of here, or I might fling bang balls at some of your real good buddies."

Poor Joe went home and thought it out. He was the richest and kindest man in all Gruba, but that ornery

Chevkrush wouldn't stay in his own yard. Joe searched for a solution, by talking to all kinds of people, including the High Splendora of Gruba. Finally they decided they'd have to do something drastic to force Chevkrush from bothering their friends. Smith sadly and reluctantly trundled out all his bang balls and heated them until they were almost ready to pop. He wasn't going to throw them—he merely wanted to scare Chevkrush.

But sad to relate, one of Smith's boys forgot to put desmokers in the fires. Chevkrush, seeing the smoke and guessing what Joe was about, hurriedly pulled his bang balls out of the caves where he'd been hiding them and lit his bang-ball fires. Chevkrush got highly excited and heaved a bang ball at Smith. Now Joe realized he had pushed Chevkrush too far. It was too late, so Joe had to retaliate. On that fateful day, Gruba just popped apart.

The moral? Don't put all your popcorn in bang balls.

## MANUAL A MONTH

JOHN P. FORSYTH

BY neglecting the inactive, enlisted reservist the Army is missing an opportunity for acquiring a backlog of skilled manpower it can use in a national emergency. Many of these men, doing six years in the Ready Reserve, are genuinely interested in augmenting their military skills. A large percentage are unable to participate in USAR activities because of geographic location, or because of long hours on a demanding job. However, the interest is there, as evidenced by the fact that many (and I am one of them) have joined AUSA, read up on tactics and strategy, and in general attempt to maintain their military proficiency.

But reading Clausewitz, enriching as his study may be, is no help when it comes to remembering how to use an aiming stake to lay in a mortar. Only the Army has the means of keeping such basic knowledge fresh in the mind of the inactive reservist. What I have in mind is admittedly unorthodox but the scheme might prove highly successful. Let's call it "Manual a Month."

The basic objective is to give every genuinely interested inactive reservist an opportunity to study current train-

ing manuals. Operation of the plan might parallel that of the monthly book clubs. It might go something like this.

Detail overhead personnel in each army area to survey and centralize stocks of surplus manuals. I know there are surplus stocks, for on many occasions I witnessed the burning of "salvaged" manuals.

Prepare a master list of all titles on hand, divided first on the basis of FM or TM, then further broken down by branch—infantry, artillery, armor, quartermaster, and so on—with a separate listing for general subjects like map reading.

Obtain mailing lists of all inactive reservists in the army area from the local USAR control groups. Mail to each of these men a copy of the master list of all available manuals, include an order form on which he can note selections, a form for record-keeping, and an explanatory brochure that would include a strong argument for actively participating in the program. This thesis should appeal to patriotic motives rather than play on the all too familiar what's-in-it-for-me theme. Admittedly, such an appeal is not too popular today, but the novelty may produce surprising results.

After studying his manual for a month, the reservist returns it with a request of another. By return mail he gets the new list from which to select, with a self-grading test on the manual he turned in. He could keep his own score on the manuals studied by filling out the record-keeping form supplied with the initial shipment. If he is recalled to active service this form could be incorporated in his 201 file.

Many reasons can be readily advanced as to why the Army could not adopt such a plan: the expense, lack of operating personnel, security, not the Army's responsibility, and the like. However, the Army must remember that it will draw heavily on the ranks of the inactive, enlisted reservists in a national emergency. That makes the Army morally obligated to be certain each inactive reservist who exhibits the urge to perfect his military skills gets every opportunity to do so. I think my plan is an inexpensive, efficient and practical way for the Army to discharge a portion of its moral obligation.

**John P. Forsyth** enlisted in the Army in 1951 and served in Korea. He is a member of the USAR, Inactive, and of AUSA.

**VERTOL tests  
world's first Tilt-Wing  
VTOL Research Aircraft**

The new Vertol 76 is a true Vertical Take-Off and Landing (VTOL) aircraft, an experimental vehicle that casts a large shadow into the future.

With its ability to take off, hover and land like a helicopter it is independent of all but the most rudimentary landing area. Yet it flies from point to point with the dispatch of a turbo-prop passenger plane.

In this pioneer air vehicle the wing and roto-propellers tilt as a unit through a 90° arc at the will of the pilot. For vertical flight he rotates the wing upward. To fly level he tilts the wing forward. Given a small runway, he can set the wing at the most effective angle to operate Model 76 as a Short Take-Off and Landing (STOL) aircraft and thus increase payload potential.



*Engineers, if you are not already working for the government or defense industry, investigate job opportunities with Vertol.*

The Model 76, soon to undergo flight tests, has been developed by Vertol for the Army Transportation Corps and the Office of Naval Research as part of the military's ceaseless quest for greater mobility and efficiency. From flight tests will come experience and knowledge applicable to the bright future of VTOL in military and commercial aviation.

Since 1943 Vertol has been a pioneer in research and development of vertical lift aircraft. It is now the largest independent manufacturer of helicopters. You may find that our know-how, our experienced personnel, our test facilities and our productive capacity can help you solve a problem.

**VERTOL** *Aircraft Corporation*

MORTON, PENNSYLVANIA

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# Electronics Maintenance: Our AAA Achilles Heel

**Lt. Col. Milton H. Mater**

IT WAS 1330 HOURS; the tracking mission was due in approximately ten minutes. The surveillance radars were already tracking the oncoming planes and the AAOC had their approach accurately plotted. Our much-vaunted Skysweeper—a sweet, straight-shooting gun—was warmed up, with its tracking radar whirling around at a great rate, feeling for the first sensitive echo to lock on and follow the oncoming plane. The inspecting officers stood expectantly near the gun which they had picked as typical. Suddenly there was a yell from one of the gun pointers. The radar ceased to whirl—and two men jumped to the front of the control box and began to unscrew the cover plate!

Far from locking on, the gunner detected something wrong on one of his radar scopes and knew that his gun would never be able to point automatically at that particular mission.

He was right. Fifteen minutes of frantic trouble-shooting, and the mission was over.

This occurred in a fixed position in the United States, with six civilian "tech reps" available for trouble-shooting, repair, and maintenance. What will the situation be in combat?

During World War II many well-trained AW units wound up with their M5 directors left in the rear areas. Too much trouble, was the verdict. What will happen in the next war when the equipment is so much more complicated, with hundreds of electron tubes for each piece of antiaircraft equipment? Not to mention the new guided-missile controls which probably contain thousands of tubes in their computers.

The problem seems to boil itself down to two: (1) *Matiériel*, which is readily subject to breakdown, and (2) *Maintenance manpower*, which is difficult to train and keep in the Army after training.

## Matériel

Those of us trained in the old school of preventive maintenance are shocked to learn that vacuum tubes apparently

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**Lieutenant Colonel Milton H. Mater, USAR**, a mechanical engineer who heads two firms, joined the National Guard in 1933 and has served in the CAC, AAA, and Infantry. During World War II he commanded a company in Africa and Italy. He commands the 6518th USAR Research and Development (Reinforced Training) Unit.



As Skysweeper's radar seeks an "enemy" target, the sergeant stands ready to call for "Battle Stations"

**Will our antiaircraft guns suffer fatal breakdowns due to delicate equipment and the lack of properly trained maintenance personnel? Here are some of the problems and possible solutions**

Aligning the optical and electrical axes of the Skysweeper radar



**ARMY**

will not respond to the same treatment. The tech reps claim that "the longer a tube operates, the longer it's going to operate." They say—and the technical officers bear them out—that there is more chance of a brand-new tube failing than an old tube.

They also claim that even removing a tube to test it, then putting it back in its socket, may cause it to fail. Also, that a tube which is operating perfectly may show a less-than-standard test on a testing machine, while a tube that tests out perfectly may not operate properly. How much of the foregoing is fact—borne out by tests—and how much is the superstition of the "impossibles" so dear to the hearts of our technicians, is very difficult to state. But it is a condition which exists.

Of course, Ordnance and the manufacturers have done what they can to increase the practicability of the gun-laying equipment by making replacement and maintenance more simple. For instance, the individual tubes need not be checked when one goes bad; a complete subassembly of tubes on a chassis frame is replaced. The individual tubes can then be checked at leisure. The replacement is simple, although the trouble-shooting to determine which frame to replace, is not. A new chassis frame is more likely to fail than an old one still operating. Then there is the matter of replacing a vacuum-tube chassis under fire. How many will be dropped, how many will be jammed in incorrectly, and so on? And, of course, how many different chassis are available to a gun during an action, and how many may be expected to fail in a prolonged engagement? These are serious questions which deserve careful answers.

The unpredictable types of failures of the vacuum tubes seem to indicate a lack of sufficient quality control in the manufacturing process. Perhaps a reexamination might give some kind of more logical sequence to maintenance. Even if this caused greater *initial* expense, it would be a very minor matter compared to the failure of a gun at a critical time.

Perhaps more rapid strides—a "crash" program—should be taken to change over to the new transistors which are supposed to be much more maintenance-free.

Another possible solution would be to change antiaircraft AW tactics so as to relieve the computer mechanism in automatic weapons of a large part of its problem, so that it could be greatly simplified. For instance, suppose we eliminated crossing courses from our tactics and assumed that only oncoming and outgoing courses would be fired on. In a circular-defense system this is possible within a few degrees, particularly if we assume that guns from the opposite side of the ring would fire over the guns on the approach sector. This might simplify the whole computer problem to the point where it will be able to operate with comparatively few vacuum tubes. Perhaps some such simplification can be worked out for the guided missiles.

#### Maintenance Manpower

Things are different from the days of training motor mechanics, communications technicians, or even radar specialists. Electronic computers or even electronic devices activated by mechanical computers are as different to maintain as were the early radars compared to the old antiaircraft searchlights.



The cover plate removed, an adjustment is made on the radar equipment

For instance, one of these new maintenance training courses includes mathematics, basic electricity, radio, and radar electronics and the like. While the training is longer—nine months now—is the manpower any better?

According to the tech reps, the schools are doing a good job, within the limitations of their student manpower availability. The graduates of the schools lack only practical experience, which takes time. By the time they have the experience, they are ready to leave the Army, perhaps to take a job as a civilian tech rep!

Some of the best technicians the Army gets are from among the well-educated drafted men. Special arrangements have been made so that after eight weeks of basic training, these men go to specialist schools for nine months. If every-

thing clicks, counting leaves and delays en route, an AA battalion can get eleven months' work out of a man in his specialist category. This is far from answering the problem, for these are the men who do *not* reenlist. And these men cannot qualify for some of the most important fire-control systems schools, such as that for the Skysweeper and guided missiles, which require fifteen or twenty months of service remaining after completion of the school courses.

Of the remaining career men who do go to the schools, one of the criticisms made by the tech reps is that men are not dropped from the schools even if they have no real aptitude for the work. These men never become well-trained technicians even though they graduate. Another group of frustrated career soldiers are those who try to get to the schools but, because of their importance in their jobs in their particular units, are not permitted to attend.

What can be done to remedy the situation?

For a short-range program, perhaps an arrangement could be made by the Government with civilian electronics- and communications-equipment manufacturing firms to employ Army-trained personnel, after they have served a five- or six-year period. This would give the Army the carrot-and-the-stick type of incentive system. If a man serves his enlistment and learns well, he can get a good civilian job in a wonderful new field. If he doesn't come up to snuff, he will not receive the necessary Army recommendation. While this is probably a great departure from the Army's manpower policies, the new, close tie-up between Army and civilian industry, where as many as nine civilians may be serving as tech reps with a battalion, indicates the need for some new thinking on this point.

Another benefit that would accrue to the Army from such

## Irons in the Fire

### Helicopter Instrument Flight

Helicopter instrument-flight demonstrations by Bell Helicopter and Bendix Aviation indicate that the helicopter can now make full use of its unique flying capabilities regardless of weather or visibility. The new instrument flight system uses a combination of a navigator operating on radio signals from ground stations, a sonic altimeter that measures altitude—accurate to within six inches—from zero to 150 feet, and improved attitude and glide path indicators. Using pre-surveyed and plotted courses, helicopters will be able to fly blind on precise routes around city skyscrapers or pinpointing on remote targets.

Officially called the "Shooting Sphere Anemometer," but nicknamed "Breeze Buster," the smooth bore weather gun fires a small steel ball upward into the wind at an angle calculated to cause the ball to fall back into, or close to, the gun's own muzzle. The higher the wind speed the sharper the angle at which the gun has to be tilted. This angle is checked with a calibrated chart to obtain a reading of the wind velocity accurate to within two miles an hour. "Breeze Buster" provides fast, dependable measurement of the low-altitude winds which so vitally affect the first few hundred feet of a missile's flight.

### Radar for Terrier Missile

The Navy has disclosed a long-secret class of super radars now in service for the guidance of Terrier missiles. The antennae of these AN/SPQ-5 radars resemble gigantic searchlights and caused much speculation when displayed aboard the missile cruiser USS *Canberra*. This radar can control missiles from a single launcher or a battery and can engage different target groups simultaneously, even selecting a single target from a close-flying group and tracking it at great distances. Their guidance function performance is very high and the systems, developed for the Navy by Sperry Gyroscope Co., incorporate flexible modes of scanning the air space many miles beyond the horizon.

### Earth Augers

The Army Corps of Engineers is testing two large earth augers at Ft. Belvoir. One, truck-mounted, can dig a hole six feet in diameter and 20 feet deep at six inches a minute. It is being tested, for possible Arctic use, on blocks of silt and loam frozen solid in Belvoir's Climatic Test Laboratory. Its "big brother," trailer-mounted, can dig a hole nine feet in diameter and 70 feet deep. Both were developed by the H. B. Williams Mfg. Co. of Dallas.

### Wind Gun

Army Signal Corps has developed a weather gun to measure low-altitude wind velocity.



Wind Gun

### Auto Revolver

An automatic revolver invented by New York engineer David Dardick is a double-action semi-automatic revolving drum weapon that holds twenty rounds in a double column magazine in the grip. It fires Dardick special caliber .38 or, with a quick change barrel, caliber .22 and other ammunition in adapters.

It is readily converted into a lightweight rifle by inserting the basic mechanism, with the barrel removed, into a rifle stock and barrel assembly.

This jam-proof weapon, a radical departure from existing guns, utilizes the "open" or "split chamber" principle, whereby ammunition is loaded into and ejected from the breech with lateral motion only and all the longitudinal reciprocating parts, such as the bolt, rammer, slide and ejector are eliminated. The Dardick ammunition consists of a thin-

a system is that eventually many civilian industries of importance to the Army would be permeated up to the highest executive positions with men whom the Army has trained and placed in civilian jobs—men who are familiar with the Army's field problems and general difficulties in using complicated equipment.

As a long-range solution, the creation of a scientific-warfare branch or staff section might be considered. In the Air Force a lieutenant colonel may be a radar officer on board a bomber, while the bomber pilot, who commands the ship, may be a captain. In a guided-missiles battalion the senior major may be the S3 rather than the executive, if he has a GM MOS. But without a staff section in which he might be promoted, this will obviously cause difficulties later on, when to promote him to battalion commander might mean losing a fine technical man and gaining a poor commander.

Combinations of the two will probably be even rarer in the Army than in industry.

Of course we have a precedent in our Medical Corps. We all know that the battalion surgeon may be a major, but he doesn't command so long as there is even a line second lieutenant around.

Perhaps it is time to admit that electronics, computers—and scientific warfare generally—have become almost as complicated and specialized as medicine.

While our advances in antiaircraft have been phenomenal, the basic equipment and maintenance personnel have not kept up with the demands of practical field usage. We need to examine the equipment with a critical eye so far as its ability to take it goes. We need to examine our maintenance personnel policies with an open mind and come up with new solutions as to their procurement and retention.



Dardick pistol with triangular cartridge cases

walled triangular cartridge case of extruded aluminum, containing a conventional projectile, propellant and primer.

### Bazooka Circuit Tester

SFC Dale A. Rivers of I Corps has invented a simple and practical bazooka circuit tester that can be carried in a soldier's pocket. Using mostly scrap materials that cost less than twenty-five cents, Sergeant Rivers produced a tester that weighs two ounces and measures 3½ x 1 inch. A wooden block recessed for a flashlight bulb is fitted with two copper contact plates and a short piece of wire (a paper clip will do). A man handy with tools can turn one out in less than two hours.

When the tester is held on the bazooka's electrical terminal and grounded with the

### HOT SPARKS

Army Engineers have announced development of a highly mobile aluminum fire truck, designed for combating fires involving non-conventional fuels or fuel storage tank farms. An all-weather unit, it is designed to operate in temperatures as low as 65 degrees below zero and as high as 125 degrees. The truck carries a 1,000-gallon water tank, 150 gallons of foam concentrate, and a pump capable of discharging foam at rates up to 6,000 gallons per minute.

During the Air Force's heavy cargo aircraft ski take-off and landing tests on frozen Minnesota lakes a four-engine, propjet, C-130 Lockheed Hercules took off at 111,000 pounds gross weight. This is the first time a plane so large has been equipped with skis.

A dual-purpose twenty-seven-inch Classroom Television Receiver has been introduced by Transvision, Inc. This set, designed especially for schools, functions as both a Closed Circuit Monitor and a regular TV receiver. The screen is 72 inches above floor level for good visibility from all parts of a classroom and a three-speaker audio system provides ample sound distribution. A new type built-in antenna system allows for good reception anywhere. Mounted on swivel casters for mobility, the set can also be broken down into three compact, easily transportable sections.

other contact plate, the bulb flashes when the trigger is pulled if the generator is working and the circuit is good. The bazookaman thus can tell before he starts stalking an enemy tank whether his launcher will fire.



Pocket-size Bazooka Tester

### Fairchild's Turboboxcar

Fairchild Engine and Airplane Corp. will produce a prototype of new four-engine turboprop transport known as the Turboboxcar. Powered with the newly developed Lycoming T-55 engine, the plane will carry 21,439 pounds at its maximum range of 1,500 miles. With boundary layer control the Turboboxcar will be able to operate from small fields and to and from the decks of carriers for on-board supply delivery.



# ASSOCIATION OF

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The Association of the U. S. Army shall be an organization wherein all who are in accord with its objectives may join in the exchange of ideas and information on military matters, and in fostering, supporting, and advocating the legitimate and proper role of the Army of the United States and of all its elements, branches, and components and providing for and assuring the Nation's military security.

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vided for by Section 55c of the National Defense Act as amended.

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# THE U. S. ARMY



## REPORT FROM YOUR AUSA CP

**General Charles L. Bolte, USA-Rtd.**, has accepted the position of Chairman of the Committee formed as a result of the resolution passed at our last annual meeting to "undertake to sponsor the erection" of a "... memorial or museum to attest to the outstanding achievements and glorious service" of the United States Army. The Council of Trustees felt that this project was so important that one of its own members should be the Chairman.

**Members of the Advisory Board** have been notified of their terms of office and have been designated to serve on specific committees.

Ninety-six exhibit booths for our Third Annual Meeting have now been sold to business and industrial firms with only 16 still available.

Sustaining memberships in the Association now total 20.

The Association held its first symposium, which is part of the program of service to sustaining members, at Fort Bliss on 24-26 April. The subject was Guided Missiles, and the presentations and demonstrations were enthusiastically received by the approximately 180 industrial leaders attending. Judging from all oral and written comments, it was a tre-

mendous success.

In the last five months the Advance Section of the Communications Zone of USAREUR has more than doubled the number of its members belonging to the Association.

It is heartening to note that approximately 85 per cent of our members whose memberships were scheduled to expire in 1956 renewed their memberships. This appears to be a positive indication that there is a sincere belief in our aims and objectives. As the Chapters and ROTC Companies make their influence felt at the local level, there should be no doubt that this trend will continue.

The 16th Reconnaissance Company, APO 201, has awarded Sgt. Tarrington, SP2 Gibson and SP3 Robertson, memberships in the Association for being the outstanding soldiers in their unit during each of the first three months of this year. The company commander, Capt. John M. Miller, Armor, considers that this will serve to remind them monthly that they are an important part of the United States Army.

**WALTER L. WEIBLE**  
Lt. Gen., USA-Rtd.  
Executive Vice President

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Has submitted resolution to Council of Trustees on subject of awards for contributions in the field of atomic energy.

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Charter presentation 10 April by Gen. Weible. Lt. Gen. W. H. Arnold and Brig. Gen. H. D. Ives, among others, spoke at ceremony.

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### DES MOINES CHAPTER

**Secretary-Treasurer:** Major Clyde Putnam, 720 Des Moines Blvd., Des Moines, Iowa. **President:** Col. Harold E. Pride; **First Vice President:** Lt. Col. Willard Hayne; **Second Vice President:** Lt. Col. William Leachman.

Took a prominent part in Armed Forces Day ceremonies in Des Moines.

### DETROIT CHAPTER

**Secretary:** Mr. Harold J. Miller, Hq Ord Tank-Automotive Command, 1501 Beard, Detroit 9, Michigan. **President:** Maj. Gen. Gordon A. MacDonald, NGUS; **First Vice President:** Col. T. S. Cawthorne, USAR; **Second Vice President:** Mr. Clifford O. May; **Treasurer:** Mr. Robert Bruce.

Robert Biggers, Trustee of AUSA, presented charter at luncheon



DETROIT, MICH. Mr. Robert L. Biggers, AUSA Trustee, addresses the charter meeting

FARGO, N. D. At the charter ceremony of Dakota Company, AUSA, Dr. O. W. Johnson, Civilian Aide to the Secretary of the Army, presents the charter to Capt. Barrett A. Johnson, Company Commander. Dakota Company, at North Dakota Agricultural College, is the first to be formed in Fifth U. S. Army



FORT LEWIS, WASH. Olympia's Mayor, Mrs. Amanda Smith, addresses the charter meeting of Washington State Chapter No. 1, AUSA. Also president; SP3 Allen Suver, recorder; Lt. Col. John A. Spencer, Fort Lewis Division and Fort Lewis commander; Col. James Stack (Ret)



NEW YORK, N. Y. Present at a meeting of the newly formed New York Chapter of AUSA are, left to right: Maj. Gen. Ramond E. Bell, Chief, U. S. Army Military District, New York; Maj. Gen. Alfred G. Tuckerman, CG, 77th Division, USAR; Maj. Gen. Edward J. McGrew, Jr., CG, 301st Logistical Command, USAR; Maj. Gen. John W. Morgan, USAR (Ret), former CG, 98th Division



CHICAGO, ILL. Charter presentation of Cook County Chapter, AUSA. Left to right: Lt. Gen. William H. Arnold, Fifth Army Commander; Lt. Gen. Walter L. Weible, USA (Ret), executive vice-president, AUSA; Brig. Gen. Lawrence H. Whiting, USA (Ret); Brig. Gen. Hiram D. Ives, Chief, U. S. Army Military District, Illinois

## AUSA on the March



meeting 11 April, at Detroit Arsenal. Chapter made up publicity kits for distribution to other chapters; goal set at 10,000 members.

#### EL PASO CHAPTER

*Secretary:* Mr. C. William Wakefield, P. O. Box 193, El Paso, Tex. *President:* Dr. Hervey W. Dietrich; *First Vice President:* Mr. Richard W. MacCarthy; *Second Vice President:* Mr. L. T. Vice; *Treasurer:* Mr. George E. Rawson.

Chapter officers and members acted as hosts, in cooperation with El Paso Chamber of Commerce, at AUSA's Guided Missile Symposium at Fort Bliss, 24-26 April.

#### FORT DEVENS CHAPTER

*Secretary:* Capt. R. S. Moriarty, 4th RCT, Fort Devens, Mass. *President:* Col. Fred L. Walker; *First Vice President:* Lt. Col. Robert C. Harris; *Second Vice President:* Maj. Glenn N. Mayo; *Treasurer:* Major Margot Reis.

#### FORT HOOD CHAPTER

*Secretary:* MSgt Maurice N. Madison, G4 Section, Bldg. 2225, Fort Hood, Tex. *President:* Brig. Gen. Roland H. del Mar; *First Vice President:* Col. W. G. Merriam; *Second Vice President:* Col. J. F. Delaney, Jr.; *Treasurer:* Capt. M. M. Gentry.

#### FORT LEONARD WOOD CHAPTER

*Secretary:* Lt. Col. George A. Rigely, Building 401, Fort Leonard Wood, Mo. *President:* Maj. Gen. William C. Baker, Jr.; *First Vice President:* Mr. Dru Pippin; *Second Vice President:* Col. George A. Meidling; *Treasurer:* Lt. John W. Shannon.

#### FORT RILEY CHAPTER

*Executive Secretary:* Lt. Col. Kenneth L. Boggs, Room 114, Patton Hall, Fort Riley, Kans. *President:* Mr. John D. Montgomery; *First Vice President:* Mr. Ralph Wareham; *Second Vice President:* Mr. Charles S. Arthur; *Secretary:* Mr. Blair D. Adam; *Treasurer:* Mr. Ed J. Rolfs, Jr.

#### FORT SHERIDAN CHAPTER

*Secretary:* MSgt James L. Norris, Fort Sheridan, Ill. *President:* Lt. Col. Warren J. King; *First Vice President:* Maj. Dale E. Williams; *Second Vice President:* Mr. Donald Y. McKay; *Treasurer:* Major I. M. Henry, WAC.

#### FRANKFORD ARSENAL CHAPTER

*Secretary:* Mr. Reuben Levine, Frankford Arsenal, Philadelphia 37, Pa. *President:* Dr. William J. Kroeger; *First Vice President:* Mr. Harry F. Devlin; *Second Vice President:* Mr. George S. VanDyke, Jr.; *Treasurer:* Mr. Kenneth E. Yocom.

#### GARRY OWEN CHAPTER

*Secretary:* Capt. Harry W. Rollins, Hq 7th Cavalry Regt., APO 201, San Francisco, California. *President:* Lt. Col. William T. Rogers; *First Vice President:* Major Bruce S. Eldridge; *Second Vice President:* Capt. James T. Cecka; *Treasurer:* 1st Lt. Ronald R. Berkey.

#### GENERAL JOHN J. PERSHING CHAPTER

*Treasurer:* Lt. Col. Harland L. Dodge, c/o Comptroller Section, Hq First U. S. Army, Governors Island, New York. *President:* Col. S. G. Brown, Jr.; *First Vice President:* Col. Harry C. Keeney; *Second Vice President:* MSgt John A. Butler; *Secretary:* Major George I. Stoeckert; *Legal Officer:* 1st Lieutenant Sheldon Cohen. Geographical area: Governors Island, N. Y.

#### HAWAII CHAPTER

*Secretary:* Major Charles D. Flinn, Hq U. S. Army Pacific, APO 958, San Francisco, California. *President:* Col. Alexander D. Surles, Jr.; *First Vice President:* Lt. Col. Emmet L. O'Connor; *Second Vice President:* Lt. Col. Arthur J. Pancock, USAR; *Third Vice President:* Lt. Col. Robert L. Stevenson, NGUS; *Treasurer:* Lt. H. H. Sackett.

#### HEIDELBERG CHAPTER

*Secretary:* Capt. A. L. Shoaff, Hq USAREUR, APO 403, New York, New York. *President:* Major Gen. G. E. Martin; *First Vice*

*President:* Col. K. E. Adamson; *Second Vice President:* Col. S. E. Otto; *Treasurer:* Major W. H. Brandenburg.

Geographical area: That covered by the Headquarters Area Command, U. S. Army, APO 403.

#### HENRY LEAVENWORTH CHAPTER

*Secretary:* Maj. John H. Cushman, Fort Leavenworth, Kans. *President:* Mr. Harold A. Purdy; *First Vice President:* Mr. John W. Breidenthal; *Second Vice President:* Col. John H. Hay; *Treasurer:* Mr. George H. Ryan.

Sparked Army Day celebration 6 April in Kansas City, with ambitious program of exhibits and speakers.

#### INDIANA CHAPTER

*Treasurer:* Major Alfred F. Ahner, Room 212 State House, Indianapolis, Indiana; *President:* Brig. Gen. Wendell C. Phillipi, NGUS; *First Vice President:* Col. John C. Carvey; *Second Vice President:* Brig. Gen. John W. McConnell; *Secretary:* Col. Harsel Harris.

#### KENTUCKIANA CHAPTER

*Secretary:* Capt. John C. Burney, c/o General Delivery, Fort Knox, Kentucky. *President:* Col. George M. Chescheir, Rtd.; *First Vice President:* Maj. Gen. Paul A. Disney; *Second Vice President:* Lt. Col. Julio Chiaramonte; *Treasurer:* Capt. Wilbur T. Whitehead; *Asst. Secretary:* MSgt Frederick L. Shawhan; *Asst. Treasurer:* 1st Lieutenant Dennis Whalen.

#### LAWTON-FORT SILL CHAPTER

*Secretary:* Maj. Rawlins M. Morris, P. O. Box 84, Lawton, Okla. *President:* Mr. George Page; *First Vice President:* Mr. Milton Woreley; *Second Vice President:* Mr. Floyd Zook; *Treasurer:* Brig. Gen. John F. Bird, Rtd.

#### MILWAUKEE CHAPTER

*Secretary:* Mr. George Comte, c/o The Wisconsin Military District, Federal Post Office Building, Milwaukee, Wisconsin. *President:* Brig. Gen. Don E. Carleton; *First Vice President:* Mr. G. M. Taylor; *Second Vice President:* Mr. Roth S. Schleck; *Treasurer:* Mr. Frank X. Mages.

#### MONTEREY COUNTY CHAPTER

*Secretary:* Mr. Richard Bennett, Pebble Beach, California. *President:* Col. Allen Griffin, Rtd., *Monterey Peninsula Herald*, Monterey, Calif. *First Vice President:* Mr. Joseph Juri; *Second Vice President:* Gen. Robert B. McClure, Rtd.; *Treasurer:* Col. Frank A. Heywood.

#### MOTHER LODE CHAPTER

*Secretary-Treasurer:* Mr. William L. Shaw, 3701 College Ave., Sacramento, Calif. *President:* Brig. Gen. A. M. Shearer, Rtd.; *First Vice President:* Mr. E. A. Combatalade; *Second Vice President:* Mr. George E. Holt.

#### PIKES PEAK CHAPTER

*Secretary:* Lt. Col. Frank A. Golbey, USA-Rtd., P. O. Box 2442, Colorado Springs, Colorado. *President:* Lt. Col. J. D. Ackerman, USAR; *Executive Vice President:* Major Gen. William H. Gill, USA Rtd.; *Vice President for Membership:* Mr. George S. Winters; *Vice President for Programs:* Mr. Samuel T. Jones, Jr.; *Treasurer:* Major H. C. Fleming, Jr., USAR.

#### POLK CHAPTER

*Secretary:* Lt. Col. John W. Rodgers, Fort Polk, La. *President:* Mr. F. E. Hernandez; *First Vice President:* Mr. P. Hoyt Hays; *Second Vice President:* Mr. Albert J. Carter; *Treasurer:* Mr. J. R. Monk, Jr.

#### SAN FRANCISCO CHAPTER

*Secretary:* Col. C. C. W. Allan, Office of the Deputy Chief of Staff Hq Sixth Army, Presidio of San Francisco, California. *President:* Mr. Frederick M. Fisk; *First Vice President:* Lt. Gen. Claude B. Ferenbaugh, USA-Rtd.; *Second Vice President:* Mr. William M. McNabb; *Treasurer:* Mr. Albert Leslie.

#### **WASHINGTON STATE CHAPTER NO. 1**

*Secretary:* Lt. Col. John A. Spencer, Fort Lewis Exchange, Fort Lewis, Washington. *President:* Col. James Stack, USA-Rtd.; *First Vice President:* Mr. Harry Minor; *Second Vice President:* Mr. Fred Osmers; *Treasurer:* Mr. Carl Phillips.

Charter meeting 7 April drew 200 guests, congratulatory message from President Eisenhower. Participated in Armed Forces Day activities. Fort Lewis commander, Maj. Gen. W. W. Quinn, offered post facilities to Chapter for meeting purposes.

#### **WOLTERS CHAPTER**

*Corresponding Secretary:* Capt. John J. Peterson, Office of the Provost Marshal, Camp Wolters, Tex. *President:* Mr. Fred Brown; *First Vice President:* Mr. Harry Hopkins; *Second Vice President:* Mr. Orval W. Shore; *Third Vice President:* Col. John L. Inskeep; *Recording Secretary:* Mr. Malcolm Maupin; *Treasurer:* Mr. I. R. Preston.

## **ROTC COMPANIES**

#### **CITADEL COMPANY**

The Citadel, Charleston, S. C.

*Captain:* Cadet Edwin C. King; *First Lieutenant:* Cadet Terry D. Cordell; *Second Lieutenant:* Cadet Charles M. Watson, Jr.; *First Sergeant:* Cadet Jimmie E. Jones, Jr.

#### **DAKOTA COMPANY**

North Dakota Agricultural College, Fargo, N. D.

*Captain:* Cadet Barrett A. Johnson; *First Lieutenant:* Cadet James L. Young; *Second Lieutenant:* Cadet Gerald E. Stock; *First Sergeant:* Cadet Ronald L. Nelsen.

Dr. O. W. Johnson, Civilian Aide to the Secretary of the Army for North Dakota, presented charter 11 April. Event drew 126 at Charter Banquet; received much publicity in local newspapers.

Guidon Society, auxiliary to Dakota Company, announced that a grant will be awarded annually to an outstanding MS III cadet. Award has been named the Guidon Grant; first award to be made at commissioning exercises.

#### **DICKINSON COLLEGE COMPANY**

Dickinson College, Carlisle, Pa.

*Captain:* Cadet Wilbur M. Otto; *First Lieutenant:* Cadet Fred Conrad; *Second Lieutenant:* Cadet William Rogers; *First Sergeant:* Cadet Dick Schafer; *PIO Sergeant:* Cadet William Black.

At meeting 3 April appointed Pledge Training Committee. Principal address by Col. Arden C. Brill, Army War College, on "Pentomic Organization."

#### **DUQUESNE UNIVERSITY COMPANY**

Duquesne University, Pittsburgh 19, Pa.

*Captain:* Cadet James King; *First Lieutenant:* Cadet John Vensel; *Second Lieutenant:* Cadet John Sullivan; *First Sergeant:* Cadet Alfred Eisenacher.

#### **EDMUND R. WALKER COMPANY**

University of Connecticut, Storrs, Conn.

*Captain:* Cadet Frank Dion; *First Lieutenant:* Cadet Ludias Bariorinas; *Second Lieutenant:* Cadet Howard Belinsky; *First Sergeant:* Cadet Richard C. Swain.

#### **ILLINI COMPANY**

University of Illinois, Champaign, Illinois.

*Captain:* Cadet Armand Ferrini; *First Lieutenant:* Cadet Kenneth Weber; *Second Lieutenant:* Cadet Charles W. Thompson; *First Sergeant:* Cadet Ray L. Allison.

#### **JOHN CARROLL UNIVERSITY COMPANY**

John Carroll University, Cleveland 18, Ohio

*Captain:* Cadet Thomas Halloran; *First Lieutenant:* Cadet Ronald Brill; *Second Lieutenant:* Cadet George Pfeiffer; *First Sergeant:* Cadet Jerry Porter.

#### **LOUISIANA STATE UNIVERSITY COMPANY**

Louisiana State University, Baton Rouge 3, La.

*Captain:* Cadet Freddy M. Keegan; *First Lieutenant:* Cadet Bobby K. Bush; *Second Lieutenant:* Cadet Fred C. Dent; *First Sergeant:* Cadet Charles A. Travis.

#### **LOYOLA COLLEGE COMPANY**

Loyola College, Baltimore 10, Md.

*Captain:* Cadet T. McHugh; *First Lieutenant:* Cadet K. Lee; *Second Lieutenant:* Cadet J. Murphy; *First Sergeant:* Cadet L. Romeo.

#### **MOCCASIN COMPANY**

University of Chattanooga, Chattanooga, Tenn.

*Captain:* Cadet John Doyle; *First Lieutenant:* Cadet Hoyt Jenkins; *Second Lieutenant:* Cadet Lawrence Putnam; *First Sergeant:* Cadet Thomas Murphy.

#### **PENNSYLVANIA STATE UNIVERSITY COMPANY**

The Pennsylvania State University, University Park, Pa.

*Captain:* Cadet George L. Beal; *First Lieutenant:* Cadet Thomas G. Hart; *Second Lieutenant:* Cadet Keith F. Vansant; *First Sergeant:* Cadet Frank H. Morris.

#### **ROBERT E. SYLVEST COMPANY**

Northwestern State College of Louisiana, Natchitoches, La.

*Captain:* Cadet Robert F. Kelley; *First Lieutenant:* Cadet Gerard Schorr; *Second Lieutenant:* Cadet Donald G. Walker; *First Sergeant:* Cadet George C. Davis.

Organizing pistol club; Company members will have use of city police pistol range. Scrapbook of Company publicity and other suitable material has been started.

#### **ST. NORBERT COLLEGE COMPANY**

St. Norbert College, West de Pere, Wisconsin.

*Captain:* Cadet John T. Wilting; *First Lieutenant:* Cadet Raphael J. Hallada; *Second Lieutenant:* Cadet Robert E. Jossart; *First Sergeant:* Cadet James J. Reilley.

#### **TEXAS CHRISTIAN COMPANY**

Texas Christian University, Fort Worth 9, Texas.

*Captain:* Cadet Jerry R. Williams; *First Lieutenant:* Cadet John D. Vaile; *Second Lieutenant:* Cadet Reid H. Bunger; *First Sergeant:* Cadet Noel A. Morrow; *Sergeants:* Cadets Ronnie Coleman, Ruben F. Fechner, Jr., and George F. Hyde.

Sponsored two-day field exercise for the Cadet Battalion.

#### **UNIVERSITY OF IDAHO COMPANY**

University of Idaho, Moscow, Idaho.

*Captain:* Cadet Curtis E. Anderson, Jr.; *First Lieutenant:* Cadet Warren G. Hawley; *Second Lieutenant:* Cadet Gary G. Sturman; *First Sergeant:* Cadet Larry P. McDonald.

#### **VALLEY FORGE COMPANY**

Valley Forge Military Academy, Wayne, Pa.

*Captain:* Cadet Arthur C. Keogh; *First Lieutenant:* Cadet John H. Clark; *Second Lieutenant:* Cadet F. Arthur Rogers; *First Sergeant:* Cadet J. Robert Lance.

#### **WEST TEXAS STATE COMPANY**

West Texas State College, Canyon, Tex.

*Captain:* Cadet John C. Middleton; *First Lieutenant:* Cadet William G. Plummer; *Second Lieutenant:* Cadet James G. Coleman; *First Sergeant:* Cadet Gene E. Glazener.

**ARMY**

# THE MONTH'S BOOKS

## Civil-Military Relations

**THE SOLDIER AND THE STATE: The Theory and Politics of Civil-Military Relations**  
By Samuel P. Huntington  
The Belknap Press of Harvard University Press, 1957  
534 Pages Index; \$7.50

Reviewed by

COL. FREDERICK BERNAYS WIENER,  
JAGC, USAR, who has contributed many articles and reviews to ARMY and is a practicing attorney in Washington.

This book, by an Assistant Professor of Government at Harvard, is more than just another volume on civil-military relations. It is by far—by very far—the best of the lot up to now, and it supersedes just about all of its predecessors. For the author realizes what virtually every other writer in the field has not even faintly glimpsed: that the problem in the United States is not that of avoiding overthrow of the civil government by the armed forces, but rather that of effecting a relationship between the military expert and the political leader that will give us the most military security with the least sacrifice of other values.

Huntington stresses what his forerunners have not understood: that the separation of powers represents the greatest hindrance to the development of military professionalism and of objective civilian control in the United States. ("Subjective civilian control achieves its end by civilianizing the military, making them the mirror of the state. Objective civilian control achieves its end by militarizing the military, making them the tool of the state.") The problem is complicated by the fact that, since the Constitution was written before the emergence of military professionalism—officers in 1787 were either aristocrats, mercenaries, or citizens doing duty in an emergency—the Framers identified civilian control with the fragmentation of authority over the military. Control of the militia was divided between the states and the federal government, that of the regular forces between the executive and the legislature. And, since there is no place for Congress in the chain of command, much of the struggle for control today is between the President of the United States and the Congress, rather than between the civilians and the military.

In the face of the ingrained American

heritage of sustained opposition to military values and military requirements, the post-Civil War Army under Sherman's leadership withdrew from society, because rejected by it, and became thoroughly professional. For a short time after World War I, the Army sought reidentification with the people; it failed, because its opposition was not a few radicals and pacifists, but America itself. Thus it is a paradox that the Army's outstanding successes in two world wars were a consequence of a professionalism that was self-induced because of the Army's rejection by all other segments of the community including business and industry and all varieties of "reform."

When World War II came, the JCS dealt directly with the President, and formulated policies in many non-military fields. Only twice did FDR reject JCS advice; according to Huntington, this meant that something was wrong, "that one of them was neglecting his proper function and duplicating the work of the other." The result of such unusual harmony was that the JCS accepted the civilian aim of an early victory and did not emphasize the purely military values of postwar security. As the author puts it: "The power of the professional military leaders reached unprecedented heights in World War II. But they scaled these summits only by sacrificing their military outlook and accepting the national values. . . . The breakdown of civilian control and the weakening of military professionalism in Germany contributed to her losing [World War I]. The parallel developments in the United States in [World War II] contributed to her losing the peace."

After World War II came Korea, the first American war that was not a crusade, and where the civilian exaltation in 1941-45 of military victory as the supreme military goal came back to haunt the civilians. The merchandising of containment was beyond the scanty political resources of the Truman Administration, and when the military undertook to defend the policy before the country, the military currency began to lose value—a necessary consequence when military men venture into political philosophy.

The story is carried into 1955 and 1956, though necessarily the author does not go too deeply into the mechanics of current defense administration in the face of the present proliferation of secretaries

and assistant secretaries. He does point out that, with the Defense Comptroller cutting service requests from FY 1950 to 1954 by 22 per cent, such cutting was less fiscal management than the making of basic decisions on strategy. He dwells on the weakened position of the members of the JCS in the face of a Chairman whose opportunities for audience at higher levels are markedly greater.

Finally, he suggests four desirable characteristics of a Secretary of Defense: "First, he should be a man of experience, possessing some familiarity with the problems with which he will be dealing. . . . Second, [he] should be a man of respect, commanding the admiration of informed public opinion. . . . Third, he should be a man of dedication, acting and thinking purely in terms of the needs of the office. . . finally, the Secretary must be a man of policy. His greatest needs are breadth, wisdom, insight, and, above all, judgment. His is neither operator, administrator, nor commander. But he is policy maker."

It is not inappropriate, in the present uncertain defense climate, to quote Professor Huntington's conclusion in full: ". . . today America can learn more from West Point than West Point from America. Upon the soldiers, the defenders of order, rests a heavy responsibility. The greatest service they can render is to remain true to themselves, to serve with silence and courage in the military way. If they abjure the military spirit, they destroy themselves first and their nation ultimately. If the civilians permit the soldiers to adhere to the military standard, the nations themselves may eventually find redemption and security in making that standard their own."

## Air Power in Korea

**AIR POWER: The Decisive Force in Korea**  
Edited by Col. James T. Stewart, USAF  
D. Van Nostrand Company, 1957  
310 Pages, Illustrated; Index; \$6.75

Reviewed by

COL. JAMES L. COLLINS, JR., Artillery, a 1939 graduate of West Point, who served in the 957th FA Battalion in Europe during the Second World War. He is now on duty in the Pentagon.

The designers of combat aircraft seem to be determined to make their products

## Selected Check List of the Month's Books

This run-down of some of the books received for review during the month preceding our deadline is to give our readers who like to follow current literature a monthly check list of the most important, useful and potentially popular books. Full reviews of some of these books will appear in this or subsequent issues. Any of these titles may be purchased through the Combat Forces Book Service. See page 80 for order coupon and a complete listing of Selected Books for Military Readers.

**AIR FORCE:** A pictorial History of American Airpower. By Martin Caidin in cooperation with USAF. Rinehart & Company, 1957. Illustrated; \$10.00. Four hundred photographs, plus short text legends, make up a formidable 9 x 12 book. The few pictures paying tribute to the airfield builders could have mentioned either the Army Engineers or the Seabees without doing irreparable damage to Air Power.

**BOATS AND OUTBOARDS.** By Elbert Robberson. Random House, 1957. 114 Pages; Illustrated; \$2.95. This will only irritate the old salts, but the man about to buy his first boat or outboard will find it almost indispensable. Covers boats, outboards, and trailers, plus elementary seamanship. Good.

**THE CAPTIVES OF KOREA.** By W. L. White. Charles Scribner's Sons, 1957. 347 Pages; Index; Illustrated; \$4.95. A chilling and effective job of contrasting the treatment of our POWs and theirs during the Korean hostilities. The author's conclusion is that we must continue to uphold the dignity of Man regardless of what our enemies do, or what we fight for is worthless.

**EGYPT'S ROLE IN WORLD AFFAIRS.** By Emil Lengyel. Public Affairs Press, 1957. 147 Pages; \$2.50. A short "quickie" treatment of what has suddenly become the world's latest crisis point. The author, Professor of History at NYU, has included events of the past several months, to turn out a work that is sympathetic to the Egyptians, critical of Nasser and American leadership, and kind to Israel.

**GUNS ON THE EARLY FRONTIERS:** A History of Firearms from Colonial Times Through the Years of the Western Fur Trade. By Carl P. Russell. University of California Press, 1957. 395 Pages; Index; Illustrated; \$8.50. Unfortunately designed for the specialist in firearms of the first half of the eighteenth century, but still a fine addition to the library of any arms enthusiast. A beautiful example of bookmaking art as well as a tasty mixture of frontier history and arms lore.

**THE HIDDEN PERSUADERS.** By Vance Packard. David McKay Company, 1957. 275 Pages; Index; \$4.00. A frightening book that tells how we are led to buy the products the hucksters sell—and

worse, to vote as we do. You'll probably continue to buy the hucksters' wares even after you read it, but at least you'll know what motivated the other easily led victims.

**HISTOIRE DE LA TACTIQUE ET DE LA STRATEGIE.** By Capt. R. Pichene. Editions de la Pensée Moderne, 1957. 222 Pages; Illustrated. A brief and lively survey of warfare, chiefly European, from antiquity to 1914, which acknowledges the importance of the principles of war, but emphasizes the art of the general in applying them.

**HOLOCAUST AT SEA:** The Drama of the *Scharnhorst*. By Corvette-Captain Fritz-Otto Busch. Rinehart & Company, 1957. 182 Pages; Index; Illustrated; \$3.50. A German account of a World War II epic, with much tribute paid to the British who were in the operation. The *Scharnhorst* was hard to kill; her last hours were much more honorable than those of *Graf Spee*, which succumbed to lighter enemy units without nearly the show of fight.

**HOW TO MAKE GOOD PICTURES.** By the Editors of Eastman Kodak Company. Random House, 1957. 190 Pages; Index; Illustrated; \$1.95. The 30th edition of every camera fan's first picture guide. Still elementary, still hitting the high spots, but still as good as any for the beginner. Beautiful color reproductions.

**JUSTICE HOLMES:** The Shaping Years. By Mark De Wolfe Howe. Belknap Press, 1957. 330 Pages; Index; \$5.00. The first volume of a life of one of America's greatest men, with a full and fascinating account of his Civil War service.

**THE KOREA KNOT:** A Military-Political History. By Carl Berger. University of Pennsylvania Press, 1957. 206 Pages; Index; \$5.00. A short, trenchant statement of the Korean problem that includes recent history and keen interpretation. The author indicates that the division of Korea today is a defeat for Communism, which expected the late conflict to subjugate the entire nation.

**LINCOLN'S COMMANDO.** By Ralph J. Roske and Charles Van Doren. Harper & Brothers, 1957. 310 Pages; Index; Illustrated; \$4.50. The comparatively unknown story of the blockade of the Southern coast in the Civil War comes to life

in this moving and exciting biography of one of the heroes of the Union Navy, the adventurous William B. Cushing, whose daring exploits justify the anachronistic title of "Lincoln's Commando."

**RADIATION:** What it is and How it Affects You. By Jack Schubert and Ralph E. Lapp. The Viking Press, 1957. 314 Pages; Index; \$3.95. Written for the intelligent layman, this work is not as gloomy as some of the things we have been hearing, but still leaves no room for complacency. Covers the cumulative effects of forms of radiation other than atomic explosions. The field permits few sharply defined answers, and the authors are careful to distinguish fact and opinion.

**THE RED FORT:** The Story of the Indian Mutiny, 1857. By James Leasor. Reynal & Company, 1957. 383 Pages; Index; Illustrated; \$5.00. It is difficult to realize that the famed Indian Mutiny occurred only four years before our own Civil War. Mr. Leasor imparts the flavor of the times in this "small-unit" account of an unnecessary and unnecessarily bloody flare-up in the days of Empire. This would be superb reporting if it had been written at the time of action; it is even more praiseworthy at this late date.

**SOLDIER IN THE WEST:** The Civil War Letters of Alfred Lacey Hough. Edited by Robert G. Athearn. University of Pennsylvania Press, 1957. 250 Pages; Index; \$5.00. Books of Civil War letters still find a ready market among those to whom this was the most interesting of all wars. Hough, thirty-five years old, rather prim, afire with zeal for the Union, left wife, family and comfortable home to enlist in the ranks; he retired as colonel in the Regular Army in 1890. This is one soldier who did not need orientation lectures on Why We Fight.

**TIN CAN ON A SHINGLE.** By William Chapman White and Ruth White. E. P. Dutton & Company, 1957. 176 Pages; Index; Illustrated; \$3.50. Food for thought—the lessons of history—particularly applicable in these days of changing weapons concepts. A short book, without dramatics, which tells of the labored birth, the alternating high hopes and evident distrust, and the tragic death of the ship that revolutionized naval warfare: USS *Monitor*.

unsuited for anything except that most unlikely of all wars, the all-out thermonuclear one. The new models are almost too expensive to risk in anything but such a conflict and they are becoming physically suited only to the transport and delivery of small packages of fissionable materials. Old-fashioned high explosives are too bulky for narrow bomb bays or streamlined pods. A thoughtful

article in a recent book on air power seems to indicate that this trend does not meet universal approval among some, at least, of the more acute minds of the Air Force.

*Air Power: The Decisive Force in Korea* is a compilation of articles originally published in the Air University Quarterly Review. General O. P. Weyland starts the ball rolling with an excellent account

of the air campaign in Korea. While, not unnaturally, he espouses the Air Force party line on the control and use of aircraft, he does so in a reasoned, persuasive and dispassionate way. Unfortunately, the art work and captions, apparently supplied by the editor, oversimplify, over-stress and make claims which General Weyland skillfully avoids. The bulk of the book is devoted to a rather technical

discussion of the ways in which the USAF gained and maintained control of the air and how it attacked ground targets during the Korean campaign. The supporting forces, as differentiated from the fighter and bomber units, receive honorable mention. The invaluable supply support provided by the troop carrier units, while touched on, is not stressed. It is regrettable that more space and emphasis is not devoted to these activities. The book is concluded with a short résumé of the varying objectives and major policy decisions which, from the viewpoint of the Air Force, affected the outcome of the Korean conflict.

One short section of particular interest, and even encouragement, is Colonel Raymond S. Sleeper's, "Air Power, the Cold War, and Peace," in which he considers the problem of the proper use of power. As he points out, it is not enough that a country merely possess power; it must be constructively employed, both for the aid and comfort of our friends and the control of hostile nations. Colonel Sleeper begins with a historical review of the use of air power against societies, in which he shows that previous objectives of air power advocates have been faulty. He cites past obsession with physical destruction as opposed to a reasoned plan for forcing our will upon the enemy, and points out the inapplicability of this doctrine to present conditions. He then discusses "the positive, active psychological, and political" use of air power. Unfortunately, the "positive" use, as outlined, is little more than the employment of transport aircraft to perform good works, such as Operation Haylift.

The reason for this watering-down of a splendid approach to one of the basic problems of our day is a little obscure. Perhaps it is that the Air Force is rapidly approaching the situation where, in a pure Air Force operation, little gradation of force is possible between the nuclear holocaust and the airlift of pilgrims to Mecca. (The psychological impact of Air Force delivery of ground forces which are capable of applying graduated power is ignored.) The vista Colonel Sleeper opens of the measured use of air power to fit the circumstances and objectives of the moment is being rapidly closed, as mentioned above, by the designers of combat aircraft. Of course, this compresses Air Force strategy even further into the rigid mold of all-or-nothing. As Colonel Sleeper points out, the strategic objective should be "not to destroy the enemy people, not to destroy the enemy cities if it can be avoided, not to produce panic, not to destroy morale, but to 'change the temper' of the enemy, or specifically, to produce behavior in the opposing government that is acceptable to us." However, this portion of the book is encouraging in that it demonstrates that

some of the more perceptive minds of the Air Force are beginning to worry about the implications of exclusive reliance on nuclear weapons.

As the book is a compendium of articles written at various times by different authors, the individual portions vary widely in quality. Many sections are frankly inspirational and appear aimed at the rather junior airman, while others, such as General Weyland's and Colonel Sleeper's contributions, are more mature in tone. Many parts are permeated with apologia for the failure of airpower to beat the backward, underdeveloped enemy into early surrender. This is rationalized, and with some reason, by the reiterated theme that "of course, the Manchurian sanctuary prevented the Air Force from winning this war." Despite a valiant effort, the book does not live up to its rather inaccurate title.

### "A Brilliant Soldier"

**THE TURN OF THE TIDE: A History of the War Years Based on the Diaries of Field Marshal Lord Alanbrooke, Chief of the Imperial General Staff**  
By Arthur Bryant  
Doubleday & Company, 1957  
637 Pages; Illustrated; Maps; Index; \$6.95

Reviewed by

MAJ. GEN. H. W. BLAKELEY, USA-Retired, who commanded the 4th Infantry Division in Europe in World War II and has contributed many articles and reviews to this magazine.

A poll of American opinion as to who was the outstanding British general of World War II would probably result in the naming of Montgomery. Professional soldiers would be more likely to name Alexander. Sir Arthur Bryant's answer is without qualification: Field Marshal Lord Alanbrooke. He offers considerable evidence and expert opinion to support his choice. A notable item: Montgomery's statement that Alanbrooke was "the greatest soldier—soldier, sailor, or airman—produced by any country taking part in the last war." (Alanbrooke himself rates MacArthur as "the greatest general of the last war.")

The current book is the first of two volumes (the other is to be called *The Triumph of the West*) based on Alanbrooke's very personal diaries and on amplifications written after the war under the title *Notes on My Life*. This auto-biographic material is of major historical value and is tied together with a running narrative which unfortunately also contains considerable expression of opinion. The reader must be constantly alert to distinguish between the frank and written-under-pressure diary, the later more restrained and considered Alanbrooke comments, and the emphases and opinions of Sir Arthur Bryant. Sir Arthur

is a distinguished British historian, but his transitional paragraphs sometimes obtrude on Alanbrooke's story.

Alanbrooke's career before he was advanced to the top British military position of Chief of the Imperial General Staff and Chairman of the Chiefs of Staff Committee was almost certainly a major factor in his attitude toward American commanders like Eisenhower. "It must be remembered," Alanbrooke says, "that Eisenhower had never even commanded a battalion in action when he found himself commanding a group of armies in North Africa. No wonder he was at a loss as to what to do, and allowed himself to be absorbed in the political situation at the expense of the tactical. I had little confidence in his ability to handle the military situation confronting him, and he caused me great anxiety. . . . He learned a lot during the war, but tactics, strategy and command were never his strong points." Elsewhere, Alanbrooke says that Eisenhower got "the very best out of an inter-Allied force," an ability which would seem to be the essence of command.

Alanbrooke, then Alan Brooke, was a much-decorated artilleryman in World War I, ending the war as a lieutenant colonel. As a corps commander in the British Expeditionary Force at the start of World War II, he was credited in one official statement with saving the whole BEF from destruction "largely by his skill and resolution."

He also had an advantage over most American commanders in the European theater in that he was born in France, spoke the language fluently, and had an intimate knowledge of Continental geography.

Many of his comments on American officers will certainly be quoted out of context (for example, of Marshall: "He does not begin to understand strategic problems") and interpreted as expressions of an anti-American attitude. This he may have had, but he is equally critical of his closest compatriots. Of Churchill's grasp of strategy, he says: "Perhaps the most remarkable failure of his is that he can never see a whole strategic problem at once."

The intimate, unpolished, daily reporting on Churchill's methods, strengths, and shortcomings makes the diary part of this book a major contribution to World War II history. The diary is also inevitably a revealing picture of its writer, a man described by Sir Arthur as "the most reticent of professional soldiers," and one who was always aware of the necessity of senior commanders presenting, in Alanbrooke's own words, "an outward appearance that radiates confidence and assurance."

It seems that Eisenhower's evaluation of Alanbrooke in his *Crusade in Europe*

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was a perceptive one. After remarking on his impulsiveness and mannerisms, Eisenhower pays tribute to his good qualities and comments that "though he lacked the ability so characteristic of General Marshall to weigh calmly the conflicting factors in a problem and so reach a rock-like decision . . . he must be classed as a brilliant soldier."

**Flesh-and-Blood Biography**

**LINCOLN'S COMMANDO**

By Ralph J. Roske and Charles Van Doren  
Harper & Brothers, 1957  
320 Pages; Illustrated; Index; \$4.00

Reviewed by

**BRIG. GEN. DONALD ARMSTRONG, USA-Retired, former Commandant of the Army Industrial College and a former President of the American Military Institute.**

Military history comes to life in a biography like this one. The book is distinguished by good writing and dramatic sense, and supported by sound scholarship. The protagonist is Commander William B. Cushing, USN. The authors—one a competent historian, the other an instructor in English and the renowned archetype of omniscience on a recent television program—do justice to their subject, and no higher compliment can be paid them.

In an era when we are urged to believe that machines will cause technological unemployment in the armed forces, Cushing's biography reminds us that man is always the basic weapon of war. It can also comfort any victims of the efficiency report.

What happened to Will Cushing in March 1861, a few months before he was scheduled to graduate at Annapolis, is almost incredible in the light of subsequent events. Cushing was then only nineteen, but his pranks at the Naval Academy had added up to astronomical figures in demerits. According to Superintendent Blake, Will's habits of study were "irregular," his general conduct "bad." But the climax of the report is this comment: "Aptitude for Naval Service: not good. Not recommended for continuance at the Academy." So Will was dismissed, but as the Civil War drew near, he struggled successfully for a commission in the Navy, and this man who had no aptitude for naval service was the outstanding Navy hero of the war. For his valiant and intrepid deeds he received the thanks of Congress, and his most outstanding act, the sinking of the *Albemarle*, magnificently described by the authors, gained him the nickname of "Albemarle" Cushing.

The authors show us a very young officer who had the fighting spirit to an unlimited degree. He took the most extraordinary risks with boldness and orig-

inality in planning and performance. His adventures were of his own devising. He learned many things about "the friction of war," but with his unique energy and mental flexibility, he laughed the unexpected obstacles to scorn. True, he was undeniably lucky, but luck never accounted for his numerous successes.

James R. Soley, naval historian and Assistant Secretary of the Navy, writes: "It is safe to say that the naval history of the world affords no other example of such marvelous coolness and professional skill as were shown by Cushing in the destruction of the 'Albemarle.'" The biographers have pust flesh and blood into the naval history of the Civil War blockade, and they have recaptured the thrill of the fabulous exploits of one of our most illustrious national heroes.

**Hungary under the Red Heel**

**A STUDENT'S DIARY: Budapest, Oct. 16—Nov. 1, 1956**

By Laszlo Beke  
The Viking Press, 1957  
125 Pages; Illustrated; \$1.95

**NO MORE COMRADES**

By Andor Heller  
Henry Regnery Company, 1957  
175 Pages; Illustrated; \$3.50

Reviewed by

**COL. CHARLES A. H. THOMSON, Infantry, USAR, former member of AUSA's Executive Council and staff member of The Brookings Institution in Washington.**

Together these two books give moving glimpses into the agony and struggle of the Hungarians, not merely in the weeks of revolutionary outbreak, but in the years of Communist oppression that preceded them. Both look forward with inexplicable but indomitable hope in the future. Both testify that independent thought can persist and find expression in speech and action despite the systematic cruelties and temptations of a totalitarian régime. Both testify also to the hopelessness of a revolt, however deeply motivated, against a régime that has consolidated power firmly in its hands, keeps the opposition divided and isolated, and draws the final measure of necessary violence from the center of international Communism.

Beke's book is the account of a student, one of forty-three members of a Free Students' Council representing all the institutions of higher education in Budapest, a former communications specialist who spent his time in the Hungarian Army learning to hate Communists and Communism. Beke starts a week before the general outbreak, as students in Szeged and Budapest took the fatal step of quitting the Communist Youth Organization. They organized a demonstration, put up a fourteen-point list of de-

mands, and marched on Bem Square. When rattled security police (AVH) set off Russian tank fire, the students discovered they had triggered the revolution, and 23 October became a date in the world's history.

For the next few weeks, Beke gives his day-to-day account of himself in the revolutionary tide, mixing up his personal interests and concerns with those of his loosely defined communications duties, and his sketchy awareness of what was going on elsewhere in the revolt. Concern for personal interest takes equal place with more public affairs; private interests win out as he and his pregnant wife escape to Austria, Canada, life and freedom.

The reigning impression is one of confusion. The revolt was fought in the midst of a civilian world, partly interested as onlookers, partly concerned to keep life going and to avoid trouble. Wounded freedom fighters were taken not only to their own first-aid stations, but to regular hospitals already taking care of casualties from the other side, and giving them preference in foreign medicines, plasma and care. Freedom fighters went to regular service stations to gas up. Most of the freedom fighters were young; students or younger. Children provided services of intelligence and communications, and learned quickly how to disable tanks by putting paving blocks in their treads. There was no comprehensive organization or any strategy or tactics beyond that learned as conscripts or improvised on the spot. Such over-all military leadership as was provided by Colonel Mateler is barely hinted at; and there seemed to be no over-all political leadership at all.

Heller is a professional photographer, sent out of the country with Diplomatic Passport No. 1 of the revolutionary régime to give three hundred on-the-spot photographs and an eyewitness account to the world outside. He left the same day Beke did (1 November) taking with him a lingering hope that the present uprising might still come off. His pictures are a good deal better than his text; and even the pictures required some sharp captioning to make them effective. They confirm the idea that it was youth that was chiefly involved; they show the statue of Stalin on its way down, and on the ground; they feature tanks, rubble, and broken bodies. His eyewitness account is sparse, full of quotations and rumors yet lacking in detail and punch. The second half of the book is devoted to a highly colored, at times amusing, account of the background of the revolutionary and life under Communism. Heller touches on the position of workers and peasants; the state of housing, education, the family, religion and sports, the work of police, and the practice of propaganda.

The outlines are familiar to all by now.

The net of both accounts suggests that incitement from the West had little or nothing to do with a spontaneous internal response to tyranny. Both attest to the central fact that a revolutionary spirit can arise despite totalitarian control, but that it takes more than spirit to overthrow such control when backed by overwhelming force. Leadership, doctrine, organization, planning, strategy, control: these are what it takes; these are what they lacked.

### In Defense of Little Mac

**GENERAL GEORGE B. McCLELLAN: Shield of the Union**

By Warren W. Hassler, Jr.  
Louisiana State University Press, 1957  
366 Pages; Illustrated; Maps; Index; \$6.00

Reviewed by

BRIG. GEN. DONALD ARMSTRONG

History has too frequently portrayed Major General George B. McClellan as a stereotype of military and political ineptitude. Mr. Hassler disagrees with the verdict of the majority of military historians. His brief for the defense is thoroughly documented, and on many controversial points is in great measure convincing. It makes McClellan come alive as the able but frustrated commander of the Army of the Potomac. It by no means insists on McClellan's military infallibility. It leaves some of the stereotype in place. But Mr. Hassler's analysis of McClellan's military career in the Civil War sheds brilliant light on his ability as a strategist, on his motives and actions, and on his many undeniable achievements. The reader of this excellent contribution to military history will no longer share U. S. Grant's opinion that McClellan was "one of the mysteries of the war." He will be less astonished that Robert E. Lee called him the ablest Federal general he opposed. McClellan was unquestionably a better general than Pope or Burnside or Hooker, but he suffered the great misfortune of having to fight on two fronts.

In truth, the Confederate Army was only one of his enemies. The other was better camouflaged, but none the less powerful. McClellan was constantly engaged in a bitterly frustrating and destructive cold war with the Radical politicians in Washington. They were far more responsible for his downfall than Robert E. Lee. To what extent this conflict was caused by a failure of diplomacy on McClellan's part is possibly not sufficiently examined in this study. The effect of the sordid and revolting machinations of Secretary Stanton and others and the weakness of General Halleck, however, has rarely been more acutely described and evaluated. Even President Lincoln, according to Mr. Hassler, must accept his

share of the odium of political interference. His was the responsibility for the lack of unity of command in the numerous independent military forces in Virginia during the Peninsula campaign. He was responsible for the blunder of withdrawing McClellan's Army of the Potomac from the James River where two years and many hundreds of thousands of killed and wounded later, Grant led his army in a striking confirmation of the wisdom of McClellan's strategy.

Mr. Hassler is fully aware of McClellan's cautious slowness that was so irritating to Lincoln and almost everybody else. Nevertheless, there were often extenuating circumstances. The author emphasizes the difficulty, and sometimes the impossibility, of moving an army on the muddy Virginia roads in the abnormally heavy rains of the early months of the Peninsula campaign. He sees to it that the half-truths of his enemies do not blemish this portrayal of McClellan's qualities of military greatness. His bitterest foes had to admit the General made something out of almost nothing after the first battle of Bull Run. He had little more to work with after Pope's debacle on that same ill-fated field. His detractors do not point out that McClellan knew how to create a high morale which inspired the Army of the Potomac to fight the successful battles of South Mountain and Antietam only a few weeks after its crushing defeat under Pope. Hardly anyone denies his ability to organize and train an effective and loyal fighting force.

Not entirely plausible is Mr. Hassler's explanation of McClellan's month before the Yorktown trenches. He is far more effective in defending McClellan's actions in the remainder of that campaign. His army astride the flooding Chickahominy was no fault of McClellan and he was not to blame for many other aspects of his retreat to Malvern Hill. Mr. Hassler with ample justification attributes the failure to crush Lee at Antietam, but in this reviewer's opinion McClellan cannot escape censure for the piecemeal attacks there.

The stereotype of history blames McClellan for allowing Lee to slip away after that battle. Mr. Hassler is worth reading on this subject as well as on the other criticisms and calumnies that have hurt the General's reputation. There is no question that this persuasively written book restores a large part of the military prestige and stature that McClellan enjoyed among his enthusiastic soldiers in his Army of the Potomac. In doing justice to General McClellan, Mr. Hassler is sometimes overly zealous, but his book is a most useful and valuable examination of the art of generalship in the political environment of the United States.

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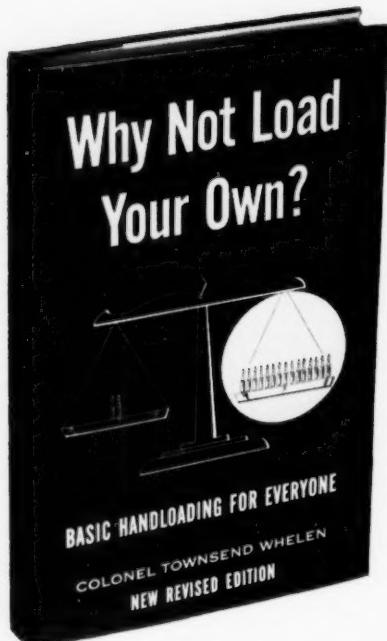
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